Chapter 1

Wavelength and Texture Feature Selection For Hyperspectral Imaging: A Systematic Literature Review - Supplementary material

Contents

1.1 Included studies

ID	Authors	Title
HSI0001	Chu et al. (2022a)	Hyperspectral imaging with shallow convolutional neural networks (SCNN) predicts the early herbicide stress in wheat cultivars
HSI0003	Qiao et al. (2022b)	Determination of hardness for maize kernels based on hyperspectral imaging
HSI0005	Arefi et al. (2021)	Vis-NIR hyperspectral imaging along with Gaussian process regression to monitor quality attributes of apple slices during drying
HSI0006	Zhang et al. (2021b)	Leaf area index estimation model for UAV image hyperspectral data based on wavelength variable selection and machine learning methods

Table 1.1: Included studies.

ID	Authors	Title
HSI0007	Moosavi-Nasab et al. (2021)	Evaluation of the total volatile basic nitrogen (TVB-N) content in fish fillets using hyperspectral imaging coupled with deep learning neural network and meta-analysis
HSI0008	Tian et al. (2021a)	Detection of early decay on citrus using LW-NIR hyperspectral reflectance imaging coupled with two-band ratio and improved watershed segmentation algorithm
HSI0009	Fan et al. (2021b)	Rapid determination of TBARS content by hyperspectral imaging for evaluating lipid oxidation in mutton
HSI0010	Xie and Lee (2021)	Detection of citrus black spot symptoms using spectral reflectance
HSI0011	Song et al. (2021)	Combination of spectral and image information from hyperspectral imaging for the prediction and visualization of the total volatile basic nitrogen content in cooked beef
HSI0013	Jiang et al. (2021b)	Chemometrics in tandem with hyperspectral imaging for detecting authentication of raw and cooked mutton rolls
HSI0015	Ban et al. (2021)	Estimation of Rice Leaf Phosphorus Content Using UAV-based Hyperspectral Images [基于无人机高光谱影像的水稻叶片磷素含量估算]
HSI0017	Hassanzadeh et al. (2021)	Broadacre crop yield estimation using imaging spectroscopy from unmanned aerial systems (UAS): A field-based case study with snap bean
HSI0018	Banerjee and Raval (2021)	A particle swarm optimization based approach to pre-tune programmable hyperspectral sensors
HSI0019	Feng et al. (2021)	Rice leaf blast classification method based on fused features and one-dimensional deep convolutional neural network
HSI0020	Liu et al. (2021c)	Quantitative evaluation of color, firmness, and soluble solid content of korla fragrant pears via iriv and ls-svm
HSI0021	Zou et al. (2021)	Application of Hyperspectral Image to Detect the Content of Total Nitrogen in Fish Meat Volatile Base [应用高光谱图像检测鱼肉挥发性盐基总氮含量研究]
HSI0022	Sun et al. (2021c)	Prediction and Distribution Visualization of Salmon Quality Based on Hyperspectral Imaging Technology [高光谱成像技术的三文鱼多品质指标的预测与分布可视化研究]
HSI0023	Ouyang et al. (2021)	Hyperspectral Image Features Combined With Spectral Features Used to Classify the Bruising Time of Peach [高光谱图像特征结合光谱特征用于毛桃碰伤时间分类]
HSI0024	Zhao et al. (2021a)	Classification of ginseng according to plant species, geographical origin, and age using laser-induced breakdown spectroscopy and hyperspectral imaging
HSI0027	Wang et al. (2021b)	Study on starch content detection and visualization of potato based on hyperspectral imaging
HSI0028	Sun et al. (2021a)	Nondestructive identification of barley seeds varieties using hyperspectral data from two sides of barley seeds
HSI0029	He et al. (2021)	Simultaneous determination of five micro-components in Chrysanthemum morifolium (Hangbaiju) using near-infrared hyperspectral imaging coupled with deep learning with wavelength selection
HSI0030	Wang et al. (2021g)	Spatial distribution of total polyphenols in multi-type of tea using near-infrared hyperspectral imaging
HSI0031	von Gersdorff et al. (2021a)	Impact of drying temperature and salt pre-treatments on drying behavior and instrumental color and investigations on spectral product monitoring during drying of beef slices

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ID	Authors	Title
HSI0032	Zhao et al. (2021b)	Generic models for rapid detection of vanillin and melamine adulterated in infant formulas from diverse brands based on near-infrared hyperspectral imaging,
HSI0033	Tang et al. (2021b)	Prediction and evaluation method of tvb-n values distribution in pork by hyperspectral imaging
HSI0034	Fatchurrahman et al. (2021)	Comparison performance of visible-nir and near-infrared hyperspectral imaging for prediction of nutritional quality of goji berry (Lycium barbarum l.)
HSI0035	Luo et al. (2021)	Nondestructive testing model of tea polyphenols based on hyperspectral technology combined with chemometric methods
HSI0036	Liu et al. (2021a)	Rice seed purity identification technology using hyperspectral image with lasso logistic regression model
HSI0037	Zhou et al. (2021c)	Classification of aflatoxin b1 concentration of single maize kernel based on near-infrared hyperspectral imaging and feature selection
HSI0038	Yu et al. (2021a)	Hyperspectral imaging in combination with data fusion for rapid evaluation of tilapia fillet freshness
HSI0039	Zhang et al. (2021e)	Temperature Stress Detection Method of Rapeseed Seedling Based on Hyperspectral Imaging [基于高光谱成像的油菜苗期温度胁迫检测方法]
HSI0040	Wang et al. (2021h)	Application of long-wave near infrared hyperspectral imaging for determination of moisture content of single maize seed
HSI0041	Heo et al. (2021)	Prediction of moisture content in steamed and dried purple sweet potato using hyperspectral imaging analysis
HSI0042	Fan et al. (2021a)	A combination of near-infrared hyperspectral imaging with two-dimensional correlation analysis for monitoring the content of biogenic amines in mutton
HSI0043	Zhang et al. (2021a)	Identification of Common Skin Defects and Classification of Early Decayed Citrus Using Hyperspectral Imaging Technique
HSI0044	Zhou et al. (2021b)	Detection Method of Oil Content of Camellia oleifera Seed Based on Hyperspectral Imaging [基于高光谱成像的油茶籽含油率检测方法]
HSI0045	Ahmed et al. (2021)	Beef quality grade classification based on intramuscular fat content using hyperspectral imaging technology
HSI0046	Guo et al. (2021)	Cotton Aphid Damage Monitoring Using UAV Hyperspectral Data Based on Derivative of Ratio Spectroscopy [基于比值导数法的棉花蚜害无人机成像光谱监测模型研究]
HSI0047	Ma et al. (2021)	Development of simplified models for nondestructive testing of rice (with husk) protein content using hyperspectral imaging technology
HSI0048	Tian et al. (2021b)	Monitoring microstructural changes and moisture distribution of dry-cured pork: a combined confocal laser scanning microscopy and hyperspectral imaging study
HSI0049	Jiang et al. (2021e)	Discrimination of Tomato Maturity Using Hyperspectral Imaging Combined with Graph-Based Semi-supervised Method Considering Class Probability Information
HSI0050	Su et al. (2021)	Hyperspectral imaging and improved feature variable selection for automated determination of deoxynivalenol in various genetic lines of barley kernels for resistance screening
HSI0052	Cheng et al. (2021)	Development of a novel quantitative function between spectral value and metmyoglobin content in Tan mutton
HSI0054	Yang et al. (2021a)	Determination of sugar content in Lingwu jujube by NIR – hyperspectral imaging

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ID	Authors	Title
HSI0055	Wang et al. (2021c)	Identification of tomatoes with early decay using visible and near infrared hyperspectral imaging and image-spectrum merging technique
HSI0056	Pitak et al. (2021b)	Rapid elemental composition measurement of commercial pellets using line-scan hyperspectral imaging analysis
HSI0057	Weng et al. (2021)	Feasibility of Authenticating Mutton Geographical Origin and Breed Via Hyperspectral Imaging with Effective Variables of Multiple Features
HSI0058	von Gersdorff et al. (2021b)	Method comparison between real-time spectral and laboratory based measurements of moisture content and CIELAB color pattern during dehydration of beef slices
HSI0059	Jiang et al. (2021a)	Near-infrared hyperspectral imaging for detection and visualization of offal adulteration in ground pork
HSI0060	Fan et al. (2021c)	Hyperspectral Model Optimization for Protein of Tan Mutton Based on Box-Behnken [Box-Behnken 法冷鲜滩羊肉蛋白质的高光谱模型优化]
HSI0061	Yuan et al. (2021)	Classification of Lingwu long jujube internal bruise over time based on visible near-infrared hyperspectral imaging combined with partial least squares-discriminant analysis
HSI0063	Ahmad et al. (2021)	Classification of tea varieties based on fluorescence hyperspectral image technology and ABC-SVM algorithm
HSI0064	Rady et al. (2021)	Near-infrared Spectroscopy and Hyperspectral Imaging for Sugar Content Evaluation in Potatoes over Multiple Growing Seasons
HSI0065	Noviyanto and Abdulla (2021)	Signifying the information carrying bands of hyperspectral imaging for honey botanical origin classification
HSI0066	Kucha et al. (2021)	Assessment of Intramuscular Fat Quality in Pork Using Hyperspectral Imaging
HSI0067	Li et al. (2021a)	Detection of Moisture Content in Lettuce Canopy Based on Hyperspectral Imaging Technique [基于高光谱成像技术的生菜冠层含水率检测]
HSI0068	Pitak et al. (2021a)	Machine learning-based prediction of selected parameters of commercial biomass pellets using line scan near infrared-hyperspectral image
HSI0069	Jie et al. (2021)	Research on Citrus grandis Granulation Determination Based on Hyperspectral Imaging through Deep Learning
HSI0070	Chakraborty et al. (2021)	Non-destructive classification and prediction of aflatoxin-B1 concentration in maize kernels using Vis − NIR (400 − 1000 nm) hyperspectral imaging
HSI0071	Yu et al. (2021b)	Heavy metal Hg stress detection in tobacco plant using hyperspectral sensing and data-driven machine learning methods
HSI0072	Pang et al. (2021)	Hyperspectral imaging coupled with multivariate methods for seed vitality estimation and forecast for Quercus variabilis
HSI0073	Sun et al. (2021b)	Visual detection of moldy peanut kernels based on the combination of hyperspectral imaging technology and chemometrics
HSI0074	Long et al. (2021)	Detection of moisture and carotenoid content in carrot slices during hot air drying based on multispectral imaging equipment with selected wavelengths
HSI0077	Benelli et al. (2021)	Ripeness evaluation of kiwifruit by hyperspectral imaging
HSI0079	Behera et al. (2021)	Classification of Soil and Prediction of Total Nitrogen Content Present in Soil by Using Hyperspectral Imaging
HSI0080	Wang et al. (2021a)	Nondestructive prediction and visualization of total flavonoids content in Cerasus Humilis fruit during storage periods based on hyperspectral imaging technique
HSI0081	Chen et al. (2021b)	Identification of various food residuals on denim based on hyperspectral imaging system and combination optimal strategy

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ID	Authors	Title
HSI0082	Wang et al. (2021e)	Artificial intelligence empowered multispectral vision based system for non-contact monitoring of large yellow croaker (Larimichthys crocea) fillets
HSI0083	Gabrielli et al. (2021)	Hyperspectral imaging to characterize table grapes
HSI0085	Shang et al. (2021)	Nondestructive detection for SSC and firmness of plums by hyperspectral imaging and artificial neural network
HSI0087	Zhang et al. (2021d)	Quantitative evaluation of impact damage to apples using NIR hyperspectral imaging
HSI0088	Jiang et al. (2021d)	Study on Detection of Potato Starch Content by Optimum Hyperspectral Characteristic Wavelength Method
HSI0091	Wang et al. (2021i)	Maturity determination of single maize seed by using near-infrared hyperspectral imaging coupled with comparative analysis of multiple classification models
HSI0092	Tang et al. (2021a)	Identification of Lycium barbarum varieties based on hyperspectral imaging technique and competitive adaptive reweighted sampling-whale optimization algorithm-support vector machine
HSI0093	Yang et al. (2021b)	Prediction of quality traits and grades of intact chicken breast fillets by hyperspectral imaging
HSI0094	Stefansson et al. (2021)	Hyperspectral NIR time series imaging used as a new method for estimating the moisture content dynamics of thermally modified Scots pine
HSI0096	Lin et al. (2021)	Comparison of moisture uniformity between microwave-vacuum and hot-air dried ginger slices using hyperspectral information combined with semivariogram
HSI0097	Wang et al. (2020a)	Segmentation Method for Maize Stubble Row Based on Hyperspectral Imaging [基于高光谱成像的玉米收获后根茬行分割方法]
HSI0098	Zhao et al. (2020a)	Correlation Analysis and Detection of Photochemical Absorption and Reflectance Spectra of Potato Leaves [马铃薯叶片光化学吸收与反射光谱关联分析及检测]
HSI0099	Ren et al. (2020)	Detection of Potato Powder Addition in Noodles Based on Hyperspectral Imaging [基于高光谱成像技术的面条中马铃薯全粉含量检测]
HSI0100	Fu et al. (2020a)	Nondestructive detection of egg freshness fusion index during storage based on hyperspectral imaging
HSI0104	Garzon-Lopez and Lasso (2020)	Species classification in a tropical alpine ecosystem using UAV-borne RGB and hyperspectral imagery
HSI0105	Gao et al. (2020)	Early detection of grapevine leafroll disease in a red-berried wine grape cultivar using hyperspectral imaging
HSI0106	Cao et al. (2020)	Nondestructive determination of the total mold colony count in green tea by hyperspectral imaging technology
HSI0107	Lu et al. (2020c)	Non-destructive discrimination of Illicium verum from poisonous adulterant using Vis/NIR hyperspectral imaging combined with chemometrics
HSI0108	Zhang et al. (2020a)	Categorization and authentication of Beijing-you chicken from four breeds of chickens using near-infrared hyperspectral imaging combined with chemometrics
HSI0109	Rady et al. (2020)	A comparison of different optical instruments and machine learning techniques to identify sprouting activity in potatoes during storage
HSI0110	Lin et al. (2020c)	Evaluating drying feature differences between ginger slices and splits during microwave-vacuum drying by hyperspectral imaging technique
HSI0111	Wan et al. (2020)	Feature wavelength selection and model development for rapid determination of myoglobin content in nitrite-cured mutton using hyperspectral imaging

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ID	Authors	Title
HSI0112	Cen et al. (2020)	Non-Destructive Testing Model of Flavonoids / Polysaccharides in Anoectochilus roxburghii by Hyperspectral Imaging Technology
HSI0113	Wang et al. (2020c)	Detection of Component Content Changes During Tofu Formation Based on Hyperspectral Imaging Technology [高光谱成像的豆腐形成过程中组分含量变化检测]
HSI0114	Huang et al. (2020c)	Research on the Visualization Differentiation of Atractylodes Lancea Granule Manufactures Based on Hyperspectral Imaging Technology Combined With the Selection of Characteristic Wavelengths [高光谱成像技术结合特征波长优化对苍术颗粒剂生产厂家的可视化判别研究]
HSI0115	Lü et al. (2020)	Effect of Near Infrared Hyperspectral Imaging Scanning Speed on Prediction of Water Content in Arabidopsis [近红外高光谱成像扫描速度对拟南芥冠层含水率预测的影响]
HSI0116	Furlanetto et al. (2020)	Hyperspectral reflectance imaging to classify lettuce varieties by optimum selected wavelengths and linear discriminant analysis
HSI0117	Liu et al. (2020a)	Determination of starch content in single kernel using near-infrared hyperspectral images from two sides of corn seeds
HSI0118	Jiang et al. (2020b)	Application of hyperspectral imaging for detecting and visualizing leaf lard adulteration in minced pork
HSI0119	Li et al. (2020b)	Intelligent evaluation of storage period of green tea based on VNIR hyperspectral imaging combined with chemometric analysis
HSI0120	Wang et al. (2020b)	Combination of spectra and texture data of hyperspectral imaging for prediction and visualization of palmitic acid and oleic acid contents in lamb meat
HSI0122	Li et al. (2020d)	Colony image segmentation and counting based on hyperspectral technology [基于高光谱技术的菌落图像分割与计数]
HSI0123	Zhang et al. (2020i)	Non-destructive analysis of germination percentage, germination energy and simple vigour index on wheat seeds during storage by Vis/NIR and SWIR hyperspectral imaging
HSI0125	Sun et al. (2020b)	Detection of Prepared Steaks Freshness Using Hyperspectral Technology Combined With Wavelengths Selection Methods Combination Strategy [高光谱结合波长选择算法串联策略检测调理牛排新鲜度]
HSI0130	Weng et al. (2020)	Non-Destructive Identification Method of Famous Rice Based on Image and Spectral Features of Hyperspectral Imaging With Convolutional Neural Network [高光谱成像的图谱特征与卷积神经网络的名优大米无损鉴别]
HSI0131	Cui et al. (2020a)	Prediction of sweet corn seed germination based on hyperspectral image technology and multivariate data regression
HSI0132	Garhwal et al. (2020)	Hyperspectral imaging for identification of Zebra Chip disease in potatoes
HSI0133	Zhou et al. (2020a)	Non-destructive discrimination of the variety of sweet maize seeds based on hyperspectral image coupled with wavelength selection algorithm
HSI0134	Yang et al. (2020a)	Early determination of mildew status in storage maize kernels using hyperspectral imaging combined with the stacked sparse auto-encoder algorithm
HSI0136	Zhang et al. (2020f)	Non-destructive determination of fat and moisture contents in Salmon (Salmo salar) fillets using near-infrared hyperspectral imaging coupled with spectral and textural features
HSI0137	Cheng et al. (2020a)	Non-destructive assessment of the myoglobin content of Tan sheep using hyperspectral imaging
HSI0138	Badaró et al. (2020)	Determination of pectin content in orange peels by near infrared hyperspectral imaging

Table 1.1: Included studies.

ID	Authors	Title
HSI0139	Shao et al. (2020a)	Visual Detection of SSC and Firmness and Maturity Prediction for Feicheng Peach by Using Hyperspectral Imaging [基于高光谱成像的肥城桃品质可视化分析与成熟度检测]
HSI0140	Pereira et al. (2020)	Detection and identification of Cannabis sativa L. using near infrared hyperspectral imaging and machine learning methods. A feasibility study
HSI0141	Ma and Sun (2020)	Prediction of monounsaturated and polyunsaturated fatty acids of various processed pork meats using improved hyperspectral imaging technique
HSI0143	Zhang et al. (2020c)	Integration of spectroscopy and image for identifying fusarium damage in wheat kernels
HSI0144	Khan et al. (2020)	Wavelength selection for rapid identification of different particle size fractions of milk powder using hyperspectral imaging
HSI0146	Feng et al. (2020)	Hyperspectral imaging coupled with multivariate analysis and image processing for detection and visualisation of colour in cooked sausages stuffed in different modified casings
HSI0147	Viinikka et al. (2020)	Detecting European Aspen (Populus tremula L.) in boreal forests using airborne hyperspectral and airborne laser scanning data
HSI0149	Liu et al. (2020b)	Hyperspectral Model Optimization for Tenderness of Chilled Tan-Sheep Mutton Based on IVISSA [IVISSA 算法冷鲜滩羊肉嫩度的高光谱模型优化]
HSI0150	Chen et al. (2020)	Detection of insect damage in green coffee beans using VIS-NIR hyperspectral imaging
HSI0151	Liu et al. (2020g)	Hyperspectral waveband selection algorithm based on weighted maximum relevance minimum redundancy and its stability analysis
HSI0152	Barreto et al. (2020)	Hyperspectral imaging of symptoms induced by Rhizoctonia solani in sugar beet: comparison of input data and different machine learning algorithms
HSI0153	Chaudhry et al. (2020)	Feasibility study for the surface prediction and mapping of phytonutrients in minimally processed rocket leaves (Diplotaxis tenuifolia) during storage by hyperspectral imaging
HSI0154	Sturm et al. (2020)	In-process investigation of the dynamics in drying behavior and quality development of hops using visual and environmental sensors combined with chemometrics
HSI0155	Wang et al. (2020g)	Rapid detection of quality index of postharvest fresh tea leaves using hyperspectral imaging
HSI0156	Ni et al. (2020)	Rapid and nondestructive monitoring for the quality of Jinhua dry-cured ham using hyperspectral imaging and chromometer
HSI0157	Wang et al. (2020f)	NIR hyperspectral imaging coupled with chemometrics for nondestructive assessment of phosphorus and potassium contents in tea leaves
HSI0158	Zhang et al. (2020g)	Detection of common defects on mandarins by using visible and near infrared hyperspectral imaging
HSI0159	Zhang et al. (2020b)	Developing deep learning based regression approaches for determination of chemical compositions in dry black goji berries (Lycium ruthenicum Murr.) using near-infrared hyperspectral imaging
HSI0161	García-Martín et al. (2020)	Identification of copper in stems and roots of Jatropha curcas L. by hyperspectral imaging
HSI0162	Wu et al. (2020)	Research on inversion model of cultivated soil moisture content based on hyperspectral imaging analysis
HSI0163	Jin et al. (2020)	Anti-corrosion wood automatic sorting robot system based on near-infrared imaging technology

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ID	Authors	Title
HSI0164	Yao et al. (2020)	Nondestructive detection for egg freshness grade based on hyperspectral imaging technology
HSI0166	Yang et al. (2020b)	Hyperspectral Imaging for Non-destructive Determination and Visualization of Moisture and Carotenoid Contents in Carrot Slices during Drying [基于高光谱成像的干燥胡萝卜片水分及类胡萝卜素含量无损检测和可视化分析]
HSI0167	Liu et al. (2020e)	Gastric cancer diagnosis using hyperspectral imaging with principal component analysis and spectral angle mapper
HSI0168	Shao et al. (2020b)	Hyperspectral Imaging Technique for Estimating the Shelf-Life of Kiwifruits [高光谱成像的猕猴桃货架期快速预测]
HSI0169	Shen et al. (2020)	High-throughput screening of free proline content in rice leaf under cadmium stress using hyperspectral imaging with chemometrics
HSI0170	Bonah et al. (2020a)	Comparison of variable selection algorithms on vis-NIR hyperspectral imaging spectra for quantitative monitoring and visualization of bacterial foodborne pathogens in fresh pork muscles
HSI0171	Ding et al. (2020)	Combining Hyperspectral Imaging and Feature Wavelength Extraction Methods for the Rapid Discrimination of Red Meat
HSI0172	Yuan et al. (2020)	Determination of metmyoglobin in cooked tan mutton using Vis/NIR hyperspectral imaging system
HSI0174	Zhang et al. (2020e)	Determination of soluble solids content in oranges using visible and near infrared full transmittance hyperspectral imaging with comparative analysis of models
HSI0175	Feng and Makino (2020)	Colour analysis in sausages stuffed in modified casings with different storage days using hyperspectral imaging – A feasibility study
HSI0177	Zhao et al. (2020b)	Potential of vibrational spectroscopy for rapid and accurate determination of the hydrogen peroxide treatment of plant leaves
HSI0178	Zhang et al. (2020d)	Development and evaluation of a new spectral disease index to detect wheat fusarium head blight using hyperspectral imaging
HSI0179	Cheng et al. (2020b)	Rapid and Non-Destructive Detection of Tan Sheep Meat MetMb Contents Using Hyperspectral Imaging [基于高光谱开发滩羊肉中高铁肌红蛋白含量的定量函数]
HSI0180	Nigon et al. (2020)	Prediction of early season nitrogen uptake in maize using high-resolution aerial hyperspectral imagery
HSI0181	Fu et al. (2020b)	Underwater hyperspectral target detection with band selection
HSI0182	Gu et al. (2020)	Unified classification of bacterial colonies on different agar media based on hyperspectral imaging and machine learning
HSI0184	Li et al. (2020a)	Above-ground biomass estimation and yield prediction in potato by using UAV-based RGB and hyperspectral imaging
HSI0185	Rady and Adedeji (2020)	Application of Hyperspectral Imaging and Machine Learning Methods to Detect and Quantify Adulterants in Minced Meats
HSI0186	Mukasa et al. (2020)	Determination of the viability of retinispora (Hinoki cypress) seeds using short-wave infrared hyperspectral imaging spectroscopy
HSI0187	Babellahi et al. (2020)	Early detection of chilling injury in green bell peppers by hyperspectral imaging and chemometrics
HSI0188	Yu et al. (2020)	Rapid detection of beef moisture content and distribution by hyperspectral imaging [高光谱成像技术对牛肉水分含量及分布的快速检测]
HSI0189	Zhang et al. (2020h)	Hyperspectral imaging technology combined with multivariate data analysis to identify heat-damaged rice seeds

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ID	Authors	Title
HSI0190	Liu et al. (2020h)	Identification of heat damage in imported soybeans based on hyperspectral imaging technology
HSI0191	Khoshnoudi-Nia and Moosavi-Nasab (2020)	Nondestructive determination of the total volatile basic nitrogen (TVB-N) content using hyperspectral imaging in Japanese threadfin bream (nemipterusjaponicus) fillet
HSI0192	Lin et al. (2020b)	Study on Hyperspectral Identification Method of Rice Origin in Northeast/Non-Northeast China Based on Conjunctive Model [基于模型集群的东北/非东北大米产地高光谱鉴别方法研究]
HSI0193	Chu et al. (2020)	Classifying maize kernels naturally infected by fungi using near-infrared hyperspectral imaging
HSI0194	Bonah et al. (2020b)	Vis-NIR hyperspectral imaging for the classification of bacterial foodborne pathogens based on pixel-wise analysis and a novel CARS-PSO-SVM model
HSI0195	Lu et al. (2020b)	Evaluation and classification of five cereal fungi on culture medium using Visible/Near-Infrared (Vis/NIR) hyperspectral imaging
HSI0196	Wei et al. (2020)	Modeling for SSC and firmness detection of persimmon based on NIR hyperspectral imaging by sample partitioning and variables selection
HSI0197	Ke et al. (2020)	Non-destructive determination of volatile oil and moisture content and discrimination of geographical origins of Zanthoxylum bungeanum Maxim. by hyperspectral imaging
HSI0198	Lu et al. (2020a)	Identification of authenticity, quality and origin of saffron using hyperspectral imaging and multivariate spectral analysis
HSI0199	Wang et al. (2020d)	Detection of Saturated Fatty Acid Content in Mutton by Using the Fusion of Hyperspectral Spectrum and Image Information [高光谱图谱融合检测羊肉中饱和脂肪酸含量]
HSI0200	Aheto et al. (2020)	Multi-sensor integration approach based on hyperspectral imaging and electronic nose for quantitation of fat and peroxide value of pork meat
HSI0201	Ye et al. (2020)	Estimation and mapping of nitrogen content in apple trees at leaf and canopy levels using hyperspectral imaging
HSI0203	Wang et al. (2020h)	Determination of moisture content of single maize seed by using long-wave near-infrared hyperspectral imaging (LWNIR) Coupled with UVE-SPA combination variable selection method
HSI0205	Chauvin et al. (2020b)	Hyperspectral band selection for food fraud application using self-organizing maps (SOM)
HSI0207	Sun et al. (2020a)	Determination of moisture content in barley seeds based on hyperspectral imaging technology
HSI0208	Huang et al. (2020a)	Model maintenance of RC-PLSR for moisture content measurement of dried scallop
HSI0209	Cui et al. (2020b)	Hyperspectral imaging for tomato bruising damage assessment of simulated harvesting process impact using wavelength interval selection and multivariate analysis
HSI0211	Torres et al. (2020)	Setting up a methodology to distinguish between green oranges and leaves using hyperspectral imaging
HSI0212	Logan et al. (2020)	Hyperspectral imaging and machine learning for monitoring produce ripeness
HSI0214	Liu et al. (2020c)	Detection of apple taste information using model based on hyperspectral imaging and electronic tongue data
HSI0219	Jiang et al. (2020a)	Rapid identification and visualization of jowl meat adulteration in pork using hyperspectral imaging

Table 1.1: Included studies.

ID	Authors	Title
HSI0220	Jiang et al. (2020c)	Determine Reducing Sugar Content in Potatoes Using Hyperspectral Combined with VISSA Algorithm
HSI0221	Lin et al. (2020a)	Identification of rice storage time based on colorimetric sensor array combined hyperspectral imaging technology
HSI0224	Malmir et al. (2020)	Prediction of macronutrients in plant leaves using chemometric analysis and wavelength selection
HSI0225	Zhang et al. (2019j)	Development of simplified models for the nondestructive testing of rice with husk starch content using hyperspectral imaging technology
HSI0226	Liu et al. (2019f)	Convolutional neural network for hyperspectral data analysis and effective wavelengths selection
HSI0227	Martinez et al. (2019)	Most relevant spectral bands identification for brain cancer detection using hyperspectral imaging
HSI0229	Zhu et al. (2019b)	Identification of soybean seed varieties based on hyperspectral imaging technology
HSI0230	Li et al. (2019g)	Detection of viability of soybean seed based on fluorescence hyperspectra and CARS-SVM-AdaBoost model
HSI0231	Gu et al. (2019)	Early detection of tomato spotted wilt virus infection in tobacco using the hyperspectral imaging technique and machine learning algorithms
HSI0232	Xia et al. (2019)	Maize seed classification using hyperspectral image coupled with multi-linear discriminant analysis
HSI0233	Khoshnoudi-Nia and Moosavi-Nasab (2019c)	Prediction of various freshness indicators in fish fillets by one multispectral imaging system
HSI0234	Gao et al. (2019)	Optical sensing for early spring freeze related blueberry bud damage detection: Hyperspectral imaging for salient spectral wavelengths identification
HSI0235	Lei et al. (2019)	Rapid classification of commercial Cheddar cheeses from different brands using PLSDA, LDA and SPA − LDA models built by hyperspectral data
HSI0236	Li et al. (2019b)	Detection of early decayed oranges based on multispectral principal component image combining both bi-dimensional empirical mode decomposition and watershed segmentation method
HSI0238	Wang et al. (2019d)	Potential of hyperspectral imaging for nondestructive determination of chlorogenic acid content in Flos Lonicerae
HSI0239	Sun et al. (2019a)	Combining near-infrared hyperspectral imaging with elemental and isotopic analysis to discriminate farm-raised pacific white shrimp from high-salinity and low-salinity environments
HSI0240	Wang et al. (2019f)	Nondestructive Identification of Star Anise and Shikimmi by Visible/Near Infrared Hyperspectral Images [基于可见/近红外高光谱的八角茴香与莽草无损鉴别]
HSI0241	Zhu et al. (2019d)	Prediction of Soluble Solid Content of Korla Pears Based on CARS-MIV [基于CARS-MIV-SVR 的库尔勒香梨可溶性固体含量预测方法]
HSI0242	Zou et al. (2019)	Investigation of Hyperspectral Imaging Technology for Detecting Frozen and Mechanical Damaged Potatoes [低温冷冻和机械损伤条件下马铃薯高光谱图像特征响应特性研究]
HSI0244	Sun et al. (2019d)	Detection of moisture content in peanut kernels using hyperspectral imaging technology coupled with chemometrics
HSI0245	Lu et al. (2019a)	Fluorescence hyperspectral image technique coupled with HSI method to predict solanine content of potatoes

Table 1.1: Included studies.

ID	Authors	Title
HSI0246	Xu et al. (2019)	Rapid prediction and visualization of moisture content in single cucumber (Cucumis sativus L.) seed using hyperspectral imaging technology
HSI0247	Ma et al. (2019b)	Comparison of spectral properties of three hyperspectral imaging (HSI) sensors in evaluating main chemical compositions of cured pork
HSI0248	Ihsan et al. (2019)	Hyperspectral Imaging Feature Selection Using Regression Tree Algorithm: Prediction of Carotenoid Content Velvet Apple Leaf
HSI0249	Mayranti et al. (2019)	Chlorophyll A and B Content Measurement System of Velvet Apple Leaf in Hyperspectral Imaging
HSI0251	Jia et al. (2019c)	Laboratory-based hyperspectral image analysis for the classification of soil texture
HSI0252	Jia et al. (2019b)	A newly developed method to extract the optimal hyperspectral feature for monitoring leaf biomass in wheat
HSI0253	Liu et al. (2019d)	Total phenolic content prediction in Flos Lonicerae using hyperspectral imaging combined with wavelengths selection methods
HSI0254	Jiang et al. (2019a)	Hyperspectral imaging for a rapid detection and visualization of duck meat adulteration in beef
HSI0257	Shao et al. (2019)	Rapid detection of soluble solids content in strawberry coated with chitosan based on hyperspectral imaging [高光谱成像快速检测壳聚糖涂膜草莓可溶性固形物]
HSI0258	Li et al. (2019c)	Rapid Detection and Visualization of Mechanical Bruises on “ Nanfeng ” Mandarin Using the Hyperspectral Imaging Combined with ICA_LSQ Method
HSI0259	Wang et al. (2019e)	Identification of mildew degrees in honeysuckle using hyperspectral imaging combined with variable selection
HSI0261	Zhu et al. (2019c)	Near-infrared hyperspectral imaging combined with deep learning to identify cotton seed varieties
HSI0262	Pang et al. (2019)	Closed-Loop Moving Windows Wavelength Selection Method with Application to Near-Infrared Spectroscopic Analysis
HSI0265	Guo et al. (2019)	Rapid quantitative analysis of adulterated rice with partial least squares regression using hyperspectral imaging system
HSI0269	Cheng et al. (2019b)	Non-destructive Detective of Glucose Contect in Lingwu Jujube by Vis/NIR Hyperspectral Imaging Technology [可见/近红外高光谱成像技术对长枣中葡萄糖含量的无损检测]
HSI0271	Li et al. (2019e)	Study on Non-Destructive Testing Model of Hyperspectral Imaging for Shelf Life of Crisp Pear [酥梨货架期的高光谱成像无损检测模型研究]
HSI0272	Zhang et al. (2019g)	Determination of Conductivity in Sweet Corn Seeds with Algorithm of GA and SPA Based on Hyperspectral Imaging Technique [基于高光谱成像技术结合 SPA 和 GA 算法测定甜玉米种子电导率]
HSI0273	Zhao et al. (2019c)	Utilising near-infrared hyperspectral imaging to detect low-level peanut powder contamination of whole wheat flour
HSI0274	Ma et al. (2019a)	Mapping changes in sarcoplasmatic and myofibrillar proteins in boiled pork using hyperspectral imaging with spectral processing methods
HSI0275	Yu et al. (2019b)	Estimation of Chlorophyll Content in Apple Leaves Based on Imaging Spectroscopy
HSI0276	Khoshnoudi-Nia and Moosavi-Nasab (2019b)	Nondestructive Determination of Microbial, Biochemical, and Chemical Changes in Rainbow Trout (Oncorhynchus mykiss) During Refrigerated Storage Using Hyperspectral Imaging Technique
HSI0277	Walton et al. (2019)	Using a genetic algorithm with histogram-based feature selection in hyperspectral image classification

Table 1.1: Included studies.

ID	Authors	Title
HSI0278	Zhang et al. (2019d)	NIR Hyperspectral Imaging Technology Combined with Multivariate Methods to Study the Residues of Different Concentrations of Omethoate on Wheat Grain Surface
HSI0280	Li et al. (2019d)	Comparison Feature Selection Methods for Subtropical Vegetation Classification with Hyperspectral Data
HSI0282	Long et al. (2019)	Detection of tomato hardness based on hyperspectral technology and modified interval random frog algorithm [基于高光谱技术和改进型区间随机蛙跳算法的番茄硬度检测]
HSI0283	Liu et al. (2019e)	Hyperspectral nondestructive detection model of chlorogenic acid content during storage of honeysuckle [金银花贮藏过程中绿原酸含量的高光谱无损检测模型研究]
HSI0284	Xie et al. (2019)	Spinach freshness detection based on hyperspectral image and deep learning method [基于高光谱图像和深度学习的菠菜新鲜度检测]
HSI0285	Ji et al. (2019)	Discriminant Analysis of Millet from Different Origins Based on Hyperspectral Imaging Technology [基于高光谱成像技术的不同产地小米判别分析]
HSI0287	Tian et al. (2019b)	A multi-region combined model for non-destructive prediction of soluble solids content in apple, based on brightness grade segmentation of hyperspectral imaging
HSI0288	Galdames et al. (2019)	Rock lithological classification by hyperspectral, range 3D and color images
HSI0289	He et al. (2019b)	Rapid and nondestructive measurement of rice seed vitality of different years using near-infrared hyperspectral imaging
HSI0290	Shorten et al. (2019)	Predicting the quality of ryegrass using hyperspectral imaging
HSI0292	Seo et al. (2019)	Optimized Multivariate Analysis for the Discrimination of Cucumber Green Mosaic Mottle Virus-Infected Watermelon Seeds Based on Spectral Imaging
HSI0293	Zhu et al. (2019a)	Early Detection and Identification of Rice Sheath Blight Disease Based on Hyperspectral Image and Chlorophyll Content [高光谱图像和叶绿素含量的水稻纹枯病早期检测识别]
HSI0294	Zhang et al. (2019c)	Rapid Detection of Freshness in Tan-Lamb Mutton Based on Hyperspectral Imaging Technology [基于高光谱成像技术的滩羊肉新鲜度快速检测研究]
HSI0295	Zhang et al. (2019f)	Wavelength Variable Selection Methods for Non-Destructive Detection of the Viability of Single Wheat Kernel Based on Hyperspectral Imaging [高光谱技术无损检测单粒小麦种子生活力的特征波段筛选方法研究]
HSI0296	Song et al. (2019)	Detection of polysaccharide content in Pleurotus eryngii based on spectral and image information [基于光谱与图像信息的杏鲍菇多糖含量检测]
HSI0297	Wang et al. (2019c)	Selecting near-infrared hyperspectral wavelengths based on one-way ANOVA to identify the origin of lycium barbarum
HSI0299	Liang et al. (2019)	Hyperspectral reflectance imaging combined with multivariate analysis for diagnosis of Sclerotinia stem rot on Arabidopsis thaliana leaves
HSI0300	Khoshnoudi-Nia and Moosavi-Nasab (2019a)	Comparison of various chemometric analysis for rapid prediction of thiobarbituric acid reactive substances in rainbow trout fillets by hyperspectral imaging technique
HSI0301	Zhang et al. (2019a)	Nondestructive measurement of soluble solids content in apple using near infrared hyperspectral imaging coupled with wavelength selection algorithm
HSI0302	Sun et al. (2019e)	Visualizing distribution of moisture content in tea leaves using optimization algorithms and NIR hyperspectral imaging
HSI0303	Delwiche et al. (2019)	Estimating percentages of fusarium-damaged kernels in hard wheat by near-infrared hyperspectral imaging

Table 1.1: Included studies.

ID	Authors	Title
HSI0305	Fu et al. (2019)	Nondestructive prediction modeling of S-ovalbumin content in stored eggs based on hyperspectral fusion information
HSI0306	Luo et al. (2019)	Hyperspectral/Multispectral Reflectance Imaging Combining with Watershed Segmentation Algorithm for Detection of Early Bruises on Apples with Different Peel Colors
HSI0307	Zhao et al. (2019a)	Application of invasive weed optimization and least square support vector machine for prediction of beef adulteration with spoiled beef based on visible near-infrared (Vis-NIR) hyperspectral imaging
HSI0309	Jiang et al. (2019b)	Integration of spectral and textural features of visible and near-infrared hyperspectral imaging for differentiating between normal and white striping broiler breast meat
HSI0311	Wang et al. (2019a)	Multi-bands Recognition of Beef Breeds with Hyperspectral Technology Combined with Characteristic Wavelengths Selection Methods [高光谱技术结合特征波长筛选的牛肉品种多波段识别]
HSI0312	Shi et al. (2019b)	Rapid Identification and Enumeration of Common Pathogens in Yogurt Using Hyperspectral Imaging [基于高光谱技术的酸奶中常见致病菌的快速鉴别及计数]
HSI0314	Zhang et al. (2019h)	Automated spectral feature extraction from hyperspectral images to differentiate weedy rice and barnyard grass from a rice crop
HSI0315	Su et al. (2019)	Chemometrics in tandem with near infrared (NIR) hyperspectral imaging and Fourier transform mid infrared (FT-MIR) microspectroscopy for variety identification and cooking loss determination of sweet potato
HSI0316	Liu et al. (2019c)	Near-infrared hyperspectral imaging rapidly detects the decay of postharvest strawberry based on water-soluble sugar analysis
HSI0318	Chen et al. (2019b)	Hyperspectral Imaging and Chemometrics for Nondestructive Quantification of Total Volatile Basic Nitrogen in Pacific Oysters (Crassostrea gigas)
HSI0319	Wang et al. (2019g)	Rapid prediction of chlorophylls and carotenoids content in tea leaves under different levels of nitrogen application based on hyperspectral imaging
HSI0320	Pan et al. (2019)	Non-destructive classification of apple bruising time based on visible and near-infrared hyperspectral imaging
HSI0322	He et al. (2019a)	Detection of Rot Blueberry Disease by Hyperspectral Imaging with SIS and RFS [高光谱成像结合 SIS 与 RFS 的蓝莓腐烂病检测]
HSI0323	Sun et al. (2019b)	Visualization of Water Content Distribution in Potato Leaves Based on Hyperspectral Image [高光谱成像的马铃薯叶片含水率分布可视化]
HSI0325	Li et al. (2019a)	Early detection of decay on apples using hyperspectral reflectance imaging combining both principal component analysis and improved watershed segmentation method
HSI0326	Abdel Gawad et al. (2019)	Classification of dental diseases using hyperspectral imaging and laser induced fluorescence
HSI0328	Zheng et al. (2019)	Detection of adulteration with duck meat in minced lamb meat by using visible near-infrared hyperspectral imaging
HSI0329	Shi et al. (2019a)	Nondestructive determination of freshness indicators for tilapia fillets stored at various temperatures by hyperspectral imaging coupled with RBF neural networks
HSI0330	Tao et al. (2019)	Sex determination of silkworm pupae using VIS-NIR hyperspectral imaging combined with chemometrics
HSI0331	Yao et al. (2019)	Early visual detection of wheat stripe rust using visible/near-infrared hyperspectral imaging

Table 1.1: Included studies.

ID	Authors	Title
HSI0332	Yu et al. (2019a)	Optimal wavelength selection for hyperspectral imaging evaluation on vegetable soybean moisture content during drying
HSI0333	Tschannerl et al. (2019)	Segmented Autoencoders for Unsupervised Embedded Hyperspectral Band Selection
HSI0334	Baek et al. (2019b)	Rapid measurement of soybean seed viability using Kernel-based multispectral image analysis
HSI0335	Zhang et al. (2019b)	Classification of frozen corn seeds using hyperspectral Vis/NIR reflectance imaging
HSI0337	Jia et al. (2019a)	Investigating the development of aspergillus flavus inoculated on maize kernels using visible and near infrared hyperspectral imaging
HSI0338	Yang et al. (2019b)	Prediction of quality attributes of chicken breast fillets by using hyperspectral imaging technique combined with deep learning algorithm
HSI0340	Zhang et al. (2019i)	Feasibility of the detection of carrageenan adulteration in chicken meat using visible/near-infrared (Vis/nir) hyperspectral imaging
HSI0341	Chu et al. (2019)	Evaluating Growth of Colletotrichum species by Near infrared (NIR) hyperspectral imaging
HSI0342	Cheng et al. (2019c)	Identification of wine grape varieties based on near-infrared hyperspectral imaging
HSI0344	Shi et al. (2019c)	Detection of minor apple damage based on hyperspectral imaging
HSI0346	Fang et al. (2019)	Hyperspectral Wavelength Selection and Integration for Bruise Detection of Korla Pears
HSI0347	Tan et al. (2019)	Discriminating soybean seed varieties using hyperspectral imaging and machine learning
HSI0348	Peng et al. (2019b)	Estimating total leaf chlorophyll content of gannan navel orange leaves using hyperspectral data based on partial least squares regression
HSI0349	Zhao et al. (2019b)	Visualization of the total viable count of bacteria during the polluted process of eggs based on near infrared hyperspectral imaging technology
HSI0350	Wu and Xu (2019)	Detection of aflatoxin B1 in pistachio kernels using visible/near-infrared hyperspectral imaging
HSI0351	Zhu and Li (2019)	Rapid detection and visualization of slight bruise on apples using hyperspectral imaging
HSI0353	Izzo et al. (2019)	An initial analysis of real-time sUAS-based detection of grapevine water status in the Finger Lakes wine country of upstate New York
HSI0355	Zhang and Ji (2019)	Identification of wheat grain in different states based on hyperspectral imaging technology
HSI0356	Li et al. (2019h)	Grade Identification of Tieguanyin Tea Using Fluorescence Hyperspectra and Different Statistical Algorithms
HSI0357	Wang et al. (2019b)	LW-NIR hyperspectral imaging for rapid prediction of TVC in chicken flesh
HSI0361	Wu et al. (2019)	Variety identification of oat seeds using hyperspectral imaging: Investigating the representation ability of deep convolutional neural network
HSI0363	Yang et al. (2019a)	A Rapid Evaluation of VC Content on Lingwu Long Jujube Using Hyperspectral Technique [灵武长枣 VC 含量的高光谱快速检测研究]
HSI0364	Liu et al. (2019a)	Study on Detection Method of Wheat Unsound Kernel Based on Near-Infrared Hyperspectral Imaging Technology [基于近红外高光谱成像技术的小麦不完善粒检测方法研究]
HSI0365	Baek et al. (2019a)	Selection of optimal hyperspectral wavebands for detection of discolored, diseased rice seeds

Table 1.1: Included studies.

ID	Authors	Title
HSI0366	Rady et al. (2019)	Prediction of the leaf primordia of potato tubers using sensor fusion and wavelength selection
HSI0367	Liu et al. (2019b)	Detection of defects in Malus asiatica nakai using hyperspectral imaging
HSI0368	Chaudhary et al. (2019)	Non-destructive trace detection of explosives using pushbroom scanning hyperspectral imaging system
HSI0369	Cheng et al. (2019a)	Developing a multispectral model for detection of docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) changes in fish fillet using physarum network and genetic algorithm (PN-GA) method
HSI0371	Ji et al. (2018)	Identification of Pesticide Residue Types in Spinach Leaves Based on Hyperspectral Imaging [高光谱成像技术鉴别菠菜叶片农药残留种类]
HSI0372	Cao et al. (2018)	Identifying mangrove species using field close-range snapshot hyperspectral imaging and machine-learning techniques
HSI0374	Fan et al. (2018)	Data fusion of two hyperspectral imaging systems with complementary spectral sensing ranges for blueberry bruising detection
HSI0375	Li et al. (2018)	Assessment of multiregion local models for detection of SSC of whole peach (Amygdalus persica L.) by combining both hyperspectral imaging and wavelength optimization methods
HSI0376	Jiang et al. (2018d)	Nondestructive quality assessment of chili peppers using near-infrared hyperspectral imaging combined with multivariate analysis
HSI0377	Liu et al. (2018c)	Non-destructive detection of Flos Lonicerae treated by sulfur fumigation based on hyperspectral imaging
HSI0378	Siripatrawan and Makino (2018)	Simultaneous assessment of various quality attributes and shelf life of packaged bratwurst using hyperspectral imaging
HSI0379	Zhang et al. (2018b)	Identification of coffee bean varieties using hyperspectral imaging: Influence of preprocessing methods and pixel-wise spectra analysis
HSI0381	Feng et al. (2018e)	Variety identification of raisins using near-infrared hyperspectral imaging
HSI0382	Liang et al. (2018)	Determination and Visualization of Different Levels of Deoxynivalenol in Bulk Wheat Kernels by Hyperspectral Imaging
HSI0385	Zhang et al. (2018e)	Assessment of defoliation during the Dendrolimus tabulaeformis Tsai et Liu disaster outbreak using UAV-based hyperspectral images
HSI0387	Rahman et al. (2018c)	Mapping the Pungency of Green Pepper Using Hyperspectral Imaging
HSI0389	Feng et al. (2018a)	Estimation of adenosine triphosphate content in ready-to-eat sausages with different storage days, using hyperspectral imaging coupled with R statistics
HSI0391	Nagasubramanian et al. (2018)	Hyperspectral band selection using genetic algorithm and support vector machines for early identification of charcoal rot disease in soybean stems
HSI0392	Islam et al. (2018a)	Noninvasive Determination of Firmness and Dry Matter Content of Stored Onion Bulbs Using Shortwave Infrared Imaging with Whole Spectra and Selected Wavelengths
HSI0393	Tan et al. (2018)	The feasibility of early detection and grading of apple bruises using hyperspectral imaging
HSI0394	Feng et al. (2018h)	Invasive weed optimization for optimizing one-agar-for-all classification of bacterial colonies based on hyperspectral imaging
HSI0395	Tao et al. (2018)	Simultaneous species and sex identification of silkworm pupae using hyperspectral imaging technology
HSI0396	Chu et al. (2018b)	Evaluation of growth characteristics of Aspergillus parasiticus inoculated in different culture media by shortwave infrared (SWIR) hyperspectral imaging
HSI0397	Rahman et al. (2018a)	Hyperspectral imaging for predicting the allicin and soluble solid content of garlic with variable selection algorithms and chemometric models

Table 1.1: Included studies.

ID	Authors	Title
HSI0398	Feng et al. (2018d)	Potential of hyperspectral imaging for rapid identification of true and false honeysuckle tea leaves
HSI0399	Wang et al. (2018d)	Discrimination of nitrogen fertilizer levels of tea plant (Camellia sinensis) based on hyperspectral imaging
HSI0400	Liu et al. (2018b)	Hyperspectral Imaging Sensing of Changes in Moisture Content and Color of Beef During Microwave Heating Process
HSI0402	Jiang et al. (2018c)	Non-destructive assessment of final color and pH attributes of broiler breast fillets using visible and near-infrared hyperspectral imaging: A preliminary study
HSI0403	Islam et al. (2018b)	Novel non-destructive quality assessment techniques of onion bulbs: a comparative study
HSI0404	Bai et al. (2018)	A non-destructive determination of peroxide values, total nitrogen and mineral nutrients in an edible tree nut using hyperspectral imaging
HSI0405	Ma et al. (2018a)	Predicting intramuscular fat content variations in boiled pork muscles by hyperspectral imaging using a novel spectral pre-processing technique
HSI0406	Zhang et al. (2018c)	Fast Prediction of Sugar Content in Dangshan Pear (Pyrus spp.) Using Hyperspectral Imagery Data
HSI0407	Zhao et al. (2018a)	Evaluation of near-infrared hyperspectral imaging for detection of peanut and walnut powders in whole wheat flour
HSI0408	Huang et al. (2018)	The Classification of Delinted Cottonseeds Varieties by Fusing Image Information Based on Hyperspectral Image Technology [基于高光谱技术融合图像信息的脱绒棉种品种分类检测研究]
HSI0413	Gao et al. (2018)	Visual Identification of Slight-Damaged Cotton Seeds Based on Near Infrared Hyperspectral Imaging [近红外高光谱成像的微破损棉种可视化识别]
HSI0416	Kong et al. (2018a)	Detection of Sclerotinia stem rot on oilseed rape (Brassica napus L.) leaves using hyperspectral imaging
HSI0418	Lu et al. (2018b)	Using hyperspectral imaging to discriminate yellow leaf curl disease in tomato leaves
HSI0419	Gan et al. (2018)	A hyperspectral inversion model for predicting chlorophyll content of Longan leaves based on deep learning [基于深度学习的龙眼叶片叶绿素含量预测的高光谱反演模型]
HSI0422	Antonov and Linsen (2018)	Interactive visual analysis and classification of hyperspectral imaging data
HSI0423	Siedliska et al. (2018)	Detection of fungal infections in strawberry fruit by VNIR/SWIR hyperspectral imaging
HSI0424	Jiang et al. (2018b)	Tenderness classification of fresh broiler breast fillets using visible and near-infrared hyperspectral imaging
HSI0425	Liu et al. (2018a)	Identification of Bruise and Fungi Contamination in Strawberries Using Hyperspectral Imaging Technology and Multivariate Analysis
HSI0426	Moscetti et al. (2018)	Postharvest monitoring of organic potato (cv. Anuschka) during hot-air drying using visible − NIR hyperspectral imaging
HSI0427	Feng et al. (2018b)	Real-time prediction of pre-cooked Japanese sausage color with different storage days using hyperspectral imaging
HSI0429	Sun et al. (2018c)	Classification and discrimination of different fungal diseases of three infection levels on peaches using hyperspectral reflectance imaging analysis
HSI0431	Feng et al. (2018f)	Nondestructive and rapid determination of lignocellulose components of biofuel pellet using online hyperspectral imaging system

Table 1.1: Included studies.

ID	Authors	Title
HSI0432	Sun et al. (2018b)	Quantitative detection of mixed pesticide residue of lettuce leaves based on hyperspectral technique
HSI0435	Zhou et al. (2018)	Visualization research of moisture content in leaf lettuce leaves based on WT-PLSR and hyperspectral imaging technology
HSI0436	Lu et al. (2018a)	Selection of spectral resolution and scanning speed for detecting green jujubes chilling injury based on hyperspectral reflectance imaging
HSI0437	Chu et al. (2018a)	Growth identification of Aspergillus flavus and Aspergillus parasiticus by visible/near-infrared hyperspectral imaging
HSI0438	Ding et al. (2018)	Non-destructive Discrimination of Different Kinds Egg by Vis/NIR Hyperspectral Imaging Technique [可见/近红外高光谱成像技术对鸡蛋种类无损判别]
HSI0439	Xiong et al. (2018)	A micro-damage detection method of litchi fruit using hyperspectral imaging technology
HSI0440	Nubiato et al. (2018)	A bench-top hyperspectral imaging system to classify beef from Nellore cattle based on tenderness
HSI0442	Shi et al. (2018b)	Quantitative Detection of Homogeneity of Moisture Content Distribution in Vinegar Culture by Hyperspectral Imaging Technique [高光谱图像技术定量检测香醋醋醅水分分布均匀性]
HSI0443	Jia et al. (2018a)	Using a combination of spectral and textural data to measure water-holding capacity in fresh chicken breast fillets
HSI0445	Jiang et al. (2018a)	Visible and near-infrared hyperspectral imaging for cooking loss classification of fresh broiler breast fillets
HSI0446	Zhang et al. (2018d)	Classification of Fishness Based on Hyperspectra Imaging Technology [高光谱成像技术鉴别鱼新鲜度]
HSI0447	Feng et al. (2018g)	A Simple and Efficient Method for CRISPR/Cas9-Induced Rice Mutant Screening [一种快速有效鉴定 CRISPR/Cas9 诱导水稻突变体的方法]
HSI0448	Feng et al. (2018c)	Hyperspectral Imaging in Tandem with R Statistics and Image Processing for Detection and Visualization of pH in Japanese Big Sausages Under Different Storage Conditions
HSI0449	Amjad et al. (2018)	Hyperspectral imaging for the determination of potato slice moisture content and chromaticity during the convective hot air drying process
HSI0450	Guo et al. (2018)	Hyperspectral image-based multi-feature integration for TVB-N measurement in pork
HSI0451	Tian et al. (2018)	A bi-layer model for nondestructive prediction of soluble solids content in apple based on reflectance spectra and peel pigments
HSI0452	Khodabakhshian and Emadi (2018)	Application of Vis/SNIR hyperspectral imaging in ripeness classification of pear
HSI0453	Shi et al. (2018a)	Detection of triterpene acids distribution in loquat (Eriobotrya japonica) leaf using hyperspectral imaging
HSI0454	Kong et al. (2018b)	Application of hyperspectral imaging to detect Sclerotinia sclerotiorum on oilseed rape stems
HSI0456	Ma et al. (2018b)	Non-destructive evaluation of wood stiffness and fiber coarseness, derived from SilviScan data, via near infrared hyperspectral imaging
HSI0459	Zhang and Li (2018)	Visual detection of apple bruises using AdaBoost algorithm and hyperspectral imaging
HSI0460	Xia et al. (2018)	Hyperspectral identification and classification of oilseed rape waterlogging stress levels using parallel computing
HSI0461	Moghimi et al. (2018)	Ensemble Feature Selection for Plant Phenotyping: A Journey from Hyperspectral to Multispectral Imaging

Table 1.1: Included studies.

ID	Authors	Title
HSI0462	Rady et al. (2018)	The potential application of sensor fusion and wavelength selection on prediction of leaf primordia of potato tubers
HSI0463	Yang et al. (2018)	Identification of adulterated beef based on near-infrared hyperspectral imaging technique
HSI0465	Yao et al. (2018)	Hyperspectral imaging for identification of powdery mildew and stripe rust in wheat
HSI0466	Chu et al. (2018c)	Identification of moldy corn kernels using visible/near-infrared hyperspectral images
HSI0467	Jia et al. (2018b)	Visible and near infrared hyperspectral imaging for nondestructive grading and classification of chicken breast fillets
HSI0468	Zhan-qi et al. (2018)	Identification of Different Concentrations Pesticide Residues of Dimethoate on Spinach Leaves by Hyperspectral Image Technology
HSI0474	Sun et al. (2018a)	Vertical distribution of chlorophyll in potato plants based on hyperspectral imaging
HSI0476	Xie and He (2018)	Modeling for mung bean variety classification using visible and near-infrared hyperspectral imaging
HSI0477	Zhao et al. (2018b)	Application of hyperspectral imaging and chemometrics for variety classification of maize seeds
HSI0480	Cheng et al. (2018)	Developing a NIR multispectral imaging for prediction and visualization of peanut protein content using variable selection algorithms
HSI0481	Sun et al. (2018d)	Detecting decayed peach using a rotating hyperspectral imaging testbed
HSI0482	Mendoza et al. (2018)	Prediction of canned black bean texture (Phaseolus vulgaris L.) from intact dry seeds using visible/near infrared spectroscopy and hyperspectral imaging data
HSI0483	Zheng et al. (2017)	Visualization of Chlorophyll Distribution of Potato Leaves Based on Hyperspectral Imaging Technology
HSI0484	Ning et al. (2017)	Classification of five Chinese tea categories with different fermentation degrees using visible and near-infrared hyperspectral imaging
HSI0485	Lu et al. (2017)	Quantitative determination of rice starch based on hyperspectral imaging technology
HSI0487	Zhu et al. (2017a)	Hyperspectral Imaging for Predicting the Internal Quality of Kiwifruits Based on Variable Selection Algorithms and Chemometric Models
HSI0489	Feng et al. (2017a)	Discrimination of CRISPR/Cas9-induced mutants of rice seeds using near-infrared hyperspectral imaging
HSI0491	Fan et al. (2017a)	Detection of blueberry internal bruising over time using NIR hyperspectral reflectance imaging with optimum wavelengths
HSI0492	Zhu et al. (2017b)	Hyperspectral Imaging for Presymptomatic Detection of Tobacco Disease with Successive Projections Algorithm and Machine-learning Classifiers
HSI0493	Liu et al. (2017b)	Potential of Hyperspectral Imaging for Rapid Prediction of Anthocyanin Content of Purple-Fleshed Sweet Potato Slices During Drying Process
HSI0494	Cheng et al. (2017a)	NIR hyperspectral imaging with multivariate analysis for measurement of oil and protein contents in peanut varieties
HSI0495	Zhang et al. (2017c)	Recognition of tea disease spot based on hyperspectral image and genetic optimization neural network
HSI0496	Liu et al. (2017a)	Identification of hybrid rice strain based on near-infrared hyperspectral imaging technology
HSI0497	Sun et al. (2017f)	Hyperspectral imaging detection of decayed honey peaches based on their chlorophyll content

Table 1.1: Included studies.

ID	Authors	Title
HSI0498	Wang et al. (2017a)	Non-Destructive Detection of Ready-to-Eat Sea Cucumber Freshness Based on Hyperspectral Imaging
HSI0499	Pan et al. (2017b)	Classifications of Oilseed Rape and Weeds Based on Hyperspectral Imaging
HSI0500	Huang et al. (2017b)	Visualized Determination of Moisture Content in Dried Scallop with Hyperspectral Imaging System
HSI0501	Li et al. (2017a)	Soil salinity retrieval model based on OLI and HSI image fusion
HSI0502	Zeng et al. (2017)	Hyperspectral imaging technique based on Geodesic K-medoids clustering and Gabor wavelets for pork quality evaluation
HSI0504	Li and Chen (2017)	Comparative analysis of models for robust and accurate evaluation of soluble solids content in ‘ Pinggu ’ peaches by hyperspectral imaging
HSI0505	Fan et al. (2017b)	Fast detection of striped stem-borer (Chilo suppressalis walker) infested rice seedling based on visible/near-infrared hyperspectral imaging system
HSI0507	Li et al. (2017b)	Banana Maturity Characteristic Prediction Based on Hyperspectral and PCA-ELM
HSI0508	Zhou et al. (2017)	Wavelength selection for the real-time detection of fear affection using a hyperspectral imaging technique
HSI0512	Yang et al. (2017b)	Detection of the Freshness State of Cooked Beef During Storage Using Hyperspectral Imaging
HSI0513	Erkinbaev et al. (2017)	Discrimination of gluten-free oats from contaminants using near infrared hyperspectral imaging technique
HSI0514	Zhao et al. (2017a)	Detection Methods of Greengage Acidity Based on Hyperspectral Imaging
HSI0516	He et al. (2017a)	Determination and visualization of peimine and peiminine content in fritillaria thunbergii bulbi treated by sulfur fumigation using hyperspectral imaging with chemometrics
HSI0517	Piiroinen et al. (2017)	Classification of tree species in a diverse African Agroforestry landscape using imaging spectroscopy and laser scanning
HSI0518	Ma et al. (2017d)	Prediction of textural changes in grass carp fillets as affected by vacuum freeze drying using hyperspectral imaging based on integrated group wavelengths
HSI0519	Jia et al. (2017a)	Prediction of pH of fresh chicken breast fillets by VNIR hyperspectral imaging
HSI0520	Feng et al. (2017b)	Discrimination of transgenic maize kernel using NIR hyperspectral imaging and multivariate data analysis
HSI0521	Gong et al. (2017)	Grading of Chinese cantonese sausage using hyperspectral imaging combined with chemometric methods
HSI0522	Su and Sun (2017a)	Chemical imaging for measuring the time series variations of tuber dry matter and starch concentration
HSI0524	Mollazade (2017)	Non-destructive Identifying Level of Browning Development in Button Mushroom (Agaricus bisporus) Using Hyperspectral Imaging Associated with Chemometrics
HSI0525	Sun et al. (2017c)	Discrimination of pesticide residues in lettuce based on chemical molecular structure coupled with wavelet transform and near infrared hyperspectra
HSI0526	Liu (2017)	Non-destructive detection of TVB-N content in fresh pork based on hyperspectral imaging technology
HSI0527	Saputro and Handayani (2017)	Wavelength selection in hyperspectral imaging for prediction banana fruit quality
HSI0528	Sun et al. (2017d)	Study on Maturity Discrimination of Hami Melon with Hyperspectral Imaging Technology Combined with Characteristic Wavelengths Selection Methods and SVM

Table 1.1: Included studies.

ID	Authors	Title
HSI0529	Wang et al. (2017b)	Detection of Fungal Disease on Tomato Leaves with Competitive Adaptive Reweighted Sampling and Correlation Analysis Methods
HSI0530	Wu et al. (2017)	Successive Projections Algorithm – Multivariable Linear Regression Classifier for the Detection of Contaminants on Chicken Carcasses in Hyperspectral Images
HSI0531	Ma et al. (2017b)	Developing hyperspectral prediction model for investigating dehydrating and rehydrating mass changes of vacuum freeze dried grass carp fillets
HSI0532	Rady et al. (2017)	Hyperspectral imaging for detection of codling moth infestation in GoldRush apples
HSI0533	Huang et al. (2017a)	Characterization of moisture content in dehydrated scallops using spectral images
HSI0535	Su et al. (2017)	Variation analysis in spectral indices of volatile chlorpyrifos and non-volatile imidacloprid in jujube (Ziziphus jujuba Mill.) using near-infrared hyperspectral imaging (NIR-HSI) and gas chromatograph-mass spectrometry (GC – MS)
HSI0536	Zhang et al. (2017b)	Classification of foreign matter embedded inside cotton lint using short wave infrared (SWIR) hyperspectral transmittance imaging
HSI0537	Yang et al. (2017a)	Combination of spectral and textural information of hyperspectral imaging for the prediction of the moisture content and storage time of cooked beef
HSI0538	Sun et al. (2017a)	Quantitative Determination of Rice Moisture Based on Hyperspectral Imaging Technology and BCC-LS-SVR Algorithm
HSI0539	Huang et al. (2017c)	Comparison of different CCD detectors and chemometrics for predicting total anthocyanin content and antioxidant activity of mulberry fruit using visible and near infrared hyperspectral imaging technique
HSI0540	Cheng et al. (2017b)	Enhancing Visible and Near-Infrared Hyperspectral Imaging Prediction of TVB-N Level for Fish Fillet Freshness Evaluation by Filtering Optimal Variables
HSI0541	Sun et al. (2017b)	Detection of internal qualities of hami melons using hyperspectral imaging technology based on variable selection algorithms
HSI0542	Xu et al. (2017)	Feature information extraction of strawberry hyperspectral data based on correlation coefficient method and spectral difference analysis
HSI0543	Qu et al. (2017b)	Vis/NIR Chemical Imaging Technique for Predicting Sodium Humate Contents in Aquaculture Environment
HSI0544	Chu et al. (2017a)	Detection of aflatoxin B1 (AFB1) in individual maize kernels using short wave infrared (SWIR) hyperspectral imaging
HSI0545	Su and Sun (2017b)	Evaluation of spectral imaging for inspection of adulterants in terms of common wheat flour, cassava flour and corn flour in organic Avatar wheat (Triticum spp.) flour
HSI0546	Liu and Guo (2017)	Identifying CPPU-Treated Kiwifruits Using Near-Infrared Hyperspectral Imaging Technology
HSI0548	Qiang et al. (2017)	Application of Vis/NIR Hyperspectral Imaging Technology in Non-Destructive Measurement of Soluble Solid Content in Lingwu Jujube
HSI0549	Cheng et al. (2017c)	Chemical spoilage extent traceability of two kinds of processed pork meats using one multispectral system developed by hyperspectral imaging combined with effective variable selection methods
HSI0551	Xie et al. (2017a)	Hyperspectral imaging for classification of healthy and gray mold diseased tomato leaves with different infection severities
HSI0552	Pan et al. (2017a)	Hyperspectral imaging with different illumination patterns for the hollowness classification of white radish

Table 1.1: Included studies.

ID	Authors	Title
HSI0555	Fan et al. (2017c)	Identification of Varieties of Dried Red Jujubes with Near-Infrared Hyperspectral Imaging
HSI0556	Yang et al. (2017d)	Application of Joint Skewness Algorithm to Select Optimal Wavelengths of Hyperspectral Image for Maize Seed Classification
HSI0558	Ma et al. (2017c)	Model improvement for predicting moisture content (MC) in pork longissimus dorsi muscles under diverse processing conditions by hyperspectral imaging
HSI0559	Xu and Sun (2017)	Identification of freezer burn on frozen salmon surface using hyperspectral imaging and computer vision combined with machine learning algorithm [Identification de la brûlure de congélation sur la surface du saumon congelé en utilisant l'imagerie hyperspectrale et la vision par ordinateur combinée avec l'algorithme d'apprentissage automatique]
HSI0560	Dong et al. (2017)	Discrimination of " Hayward " Kiwifruits Treated with Forchlorfenuron at Different Concentrations Using Hyperspectral Imaging Technology
HSI0561	Yang et al. (2017e)	Hyperspectral Image-Based Variety Discrimination of Maize Seeds by Using a Multi-Model Strategy Coupled with Unsupervised Joint Skewness-Based Wavelength Selection Algorithm
HSI0562	Zhu et al. (2017c)	Feasibility Study on Quantitative Pixel-Level Visualization of Internal Quality at Different Cross Sections Inside Postharvest Loquat Fruit
HSI0564	Zhao et al. (2017b)	Variety classification of maize kernels using near infrared (NIR) hyperspectral imaging
HSI0565	Chu et al. (2017b)	Evaluation of growth characteristics of aspergillus parasiticus by shortwave infrared (SWIR) hyperspectral imaging
HSI0566	Guo et al. (2017)	Hyperspectral image-based Spare autoencoder network for TVB-N measurement in pork
HSI0568	Yangyang et al. (2017)	Detection of aphid infestation on pakchoi (Brassica chinensis) based on Visible/near-infrared hyperspectral imaging technology
HSI0569	Jia et al. (2017b)	Application of VNIR hyperspectral imaging for nondestructive prediction of pH, color and drip loss of chicken breast fillets
HSI0572	Mat Jafri and Tan (2017)	Feature selection from hyperspectral imaging for guava fruit defects detection
HSI0573	Xia et al. (2017)	Sensitive Wavelengths Selection in Identification of Ophiopogon japonicus Based on Near-Infrared Hyperspectral Imaging Technology
HSI0574	Zhao et al. (2017d)	Early detection of aphid (myzus persicae) infestation on Chinese cabbage by hyperspectral imaging and feature extraction
HSI0579	Chen et al. (2017b)	Visual detection study on early bruises of korla pear based on hyperspectral imaging technology
HSI0580	Zhao et al. (2017c)	Early detection of Aspergillus parasiticus infection in maize kernels using near-infrared hyperspectral imaging and multivariate data analysis
HSI0581	He et al. (2017b)	Application of near-infrared hyperspectral imaging to detect sulfur dioxide residual in the Fritillaria thunbergii bulbus treated by sulfur fumigation
HSI0582	Sun et al. (2017e)	Hyperspectral reflectance imaging combined with chemometrics and successive projections algorithm for chilling injury classification in peaches
HSI0583	Zhang et al. (2017a)	Application of Near-Infrared Hyperspectral Imaging with Variable Selection Methods to Determine and Visualize Caffeine Content of Coffee Beans
HSI0584	Qu et al. (2017a)	Mapping moisture contents in grass carp (Ctenopharyngodon idella) slices under different freeze drying periods by Vis-NIR hyperspectral imaging
HSI0585	Yang et al. (2017c)	Development of simplified models for nondestructive hyperspectral imaging monitoring of TVB-N contents in cured meat during drying process

Table 1.1: Included studies.

ID	Authors	Title
HSI0586	Ning et al. (2016)	Discriminant of withering quality of Keemun black tea based on information fusion of image and spectrum
HSI0587	Zhao et al. (2016c)	Detection of fungus infection on petals of rapeseed (Brassica napus L.) using NIR hyperspectral imaging
HSI0590	Alsuwaidi et al. (2016)	Hyperspectral selection based algorithm for plant classification
HSI0591	Fan et al. (2016)	Prediction of soluble solids content of apple using the combination of spectra and textural features of hyperspectral reflectance imaging data
HSI0592	Cheng et al. (2016)	Pork biogenic amine index (BAI) determination based on chemometric analysis of hyperspectral imaging data
HSI0594	Wang et al. (2016c)	Prediction for nitrogen content of rice leaves in cold region based on hyperspectrum
HSI0595	Kong et al. (2016)	Non-destructive determination of Malondialdehyde (MDA) distribution in oilseed rape leaves by laboratory scale NIR hyperspectral imaging
HSI0596	Tian et al. (2016)	Measuring the moisture content in maize kernel based on hyperspctral image of embryo region
HSI0597	Wang et al. (2016d)	Study on Tan-lamb mutton tenderness by using the fusion of hyperspectral spectrum and image information
HSI0598	Sun et al. (2016d)	Characteristic wavelength selection-based prediction of soluble solids content of Hami big jujubes using the hyperspectral imaging technology
HSI0599	Zhao et al. (2016a)	Detection of low concentration pesticide residue on pears by hyperspectral image technology
HSI0600	Su and Sun (2016)	Multivariate analysis of hyper/multi-spectra for determining volatile compounds and visualizing cooking degree during low-temperature baking of tubers
HSI0601	Zhu et al. (2016b)	Study on characteristic bands selection of lamb pH value based on hyperspectral imaging and partial least squares(PLS)
HSI0602	Mustafic et al. (2016)	Cotton contamination detection and classification using hyperspectral fluorescence imaging
HSI0605	Li et al. (2016b)	Fast detection and visualization of early decay in citrus using Vis-NIR hyperspectral imaging
HSI0606	Wu et al. (2016a)	Study on the optimal algorithm prediction of corn leaf component information based on hyperspectral imaging
HSI0607	Neumann et al. (2016)	Utilizing a PLSR-Based Band-Selection Procedure for Spectral Feature Characterization of Floristic Gradients
HSI0609	Pan et al. (2016)	Detection of cold injury in peaches by hyperspectral reflectance imaging and artificial neural network
HSI0610	Ma et al. (2016a)	Identification of the citrus greening disease using spectral and textural features based on hyperspectral imaging
HSI0611	Zhang et al. (2016d)	Hyperspectral image segmentation method for plastic films in ginned cotton
HSI0612	Möckel et al. (2016)	Airborne hyperspectral data predict Ellenberg indicator values for nutrient and moisture availability in dry grazed grasslands within a local agricultural landscape
HSI0613	Jin et al. (2016)	Rapid and Non-destructive Determination of Oil Content of Peanut (Arachis hypogaea L.) Using Hyperspectral Imaging Analysis
HSI0615	Liu and Gan (2016)	Determination of total volatile basic nitrogen (TVB-N) content in beef by hyperspectral imaging technique
HSI0616	Kandpal et al. (2016)	Near-infrared hyperspectral imaging system coupled with multivariate methods to predict viability and vigor in muskmelon seeds

Table 1.1: Included studies.

ID	Authors	Title
HSI0617	Sun et al. (2016c)	Identification of red bean variety with probabilistic GA-PNN based on hyperspectral imaging
HSI0619	Ferreira et al. (2016)	Mapping tree species in tropical seasonal semi-deciduous forests with hyperspectral and multispectral data
HSI0620	Wang et al. (2016a)	Fast identification of transgenic soybean varieties based near infrared hyperspectral imaging technology
HSI0622	Kamruzzaman et al. (2016b)	Online monitoring of red meat color using hyperspectral imaging
HSI0625	Dong et al. (2016)	Nondestructive Determination of Soluble Solids Content of ' Fuji ' Apples Produced in Different Areas and Bagged with Different Materials During Ripening
HSI0627	Khulal et al. (2016)	Nondestructive quantifying total volatile basic nitrogen (TVB-N) content in chicken using hyperspectral imaging (HSI) technique combined with different data dimension reduction algorithms
HSI0628	Ma et al. (2016b)	Spectral absorption index in hyperspectral image analysis for predicting moisture contents in pork longissimus dorsi muscles
HSI0629	Liu et al. (2016c)	Hyperspectral band selection based on consistency-measure of neighborhood rough set theory
HSI0631	Kamruzzaman et al. (2016c)	Parsimonious model development for real-time monitoring of moisture in red meat using hyperspectral imaging
HSI0632	Yeh et al. (2016)	Strawberry foliar anthracnose assessment by hyperspectral imaging
HSI0633	Kamruzzaman et al. (2016a)	Hyperspectral imaging for real-time monitoring of water holding capacity in red meat
HSI0634	Wu et al. (2016b)	Mapping of TBARS distribution in frozen-thawed pork using NIR hyperspectral imaging
HSI0635	Liang et al. (2016)	Identification of fusarium head blight wheat based on hyperspectral imaging technology
HSI0636	Zhang et al. (2016b)	Determination and visualization of pH values in anaerobic digestion of water hyacinth and rice straw mixtures using hyperspectral imaging with wavelet transform denoising and variable selection
HSI0638	Xie and He (2016)	External characteristic determination of eggs and cracked eggs identification using spectral signature
HSI0640	Wu et al. (2016d)	Study on visual identification of corn seeds based on hyperspectral imaging technology
HSI0641	Kamruzzaman et al. (2016d)	Rapid and non-destructive detection of chicken adulteration in minced beef using visible near-infrared hyperspectral imaging and machine learning
HSI0642	Pu and Sun (2016)	Prediction of moisture content uniformity of microwave-vacuum dried mangoes as affected by different shapes using NIR hyperspectral imaging
HSI0643	Sun et al. (2016b)	Nondestructive identification of pesticide residues in lettuce leaves based on linear discriminant method
HSI0645	Li et al. (2016c)	Multispectral imaging for early decay detection in citrus fruit
HSI0646	Huang et al. (2016)	Maize seed variety classification using the integration of spectral and image features combined with feature transformation based on hyperspectral imaging
HSI0647	Zhu et al. (2016a)	Early detection and classification of tobacco leaves inoculated with tobacco mosaic virus based on hyperspectral imaging technique
HSI0649	Xie et al. (2016)	Detection of grey mold disease on tomato leaves at different infected stages using hyperspectral imaging
HSI0651	Zhang et al. (2016a)	Estimation and visualization of soluble sugar content in oilseed rape leaves using hyperspectral imaging

Table 1.1: Included studies.

ID	Authors	Title
HSI0653	Liu et al. (2016b)	Non-destructive detection of the ph value of cold fresh pork using hyperspectral imaging technique
HSI0654	Zhang et al. (2016c)	Effective wavelengths selection of hyperspectral images of plastic films in cotton
HSI0655	Wu et al. (2016c)	A novel method for detection of Pieris rapae larvae on cabbage leaves using NIR hyperspectral imaging
HSI0656	Qiao et al. (2016)	Rapid discrimination of main red meat species based on near-infrared hyperspectral imaging technology
HSI0658	Sun et al. (2016a)	Classification of black beans using visible and near infrared hyperspectral imaging
HSI0660	Naganathan et al. (2016)	Identification and validation of key wavelengths for on-line beef tenderness forecasting
HSI0662	Li et al. (2016a)	Detection of waxed chestnuts using visible and near-infrared hyper-spectral imaging
HSI0664	Jun et al. (2016)	Detection of pesticide residues in mulberey leaves using vis-nir hyperspectral imaging technology
HSI0665	Yu et al. (2016)	Mapping of chlorophyll and spad distribution in pepper leaves during leaf senescence using visible and near-infrared hyperspectral imaging
HSI0668	Liu et al. (2016a)	Application of Near-Infrared Hyperspectral Imaging for Detection of External Insect Infestations on Jujube Fruit
HSI0670	Xu et al. (2016)	Efficient integration of particle analysis in hyperspectral imaging for rapid assessment of oxidative degradation in salmon fillet
HSI0671	Wang et al. (2016b)	Application of Hyperspectral Imaging to Discriminate the Variety of Maize Seeds
HSI0672	Guo et al. (2016)	Nondestructive Measurement of Soluble Solids Content of Kiwifruits Using Near-Infrared Hyperspectral Imaging
HSI0673	Lu et al. (2015)	Framework for hyperspectral image processing and quantification for cancer detection during animal tumor surgery
HSI0674	Jin et al. (2015a)	Rapid and Non-destructive Determination of Moisture Content of Peanut Kernels Using Hyperspectral Imaging Technique
HSI0675	He and Sun (2015b)	Selection of Informative Spectral Wavelength for Evaluating and Visualising Enterobacteriaceae Contamination of Salmon Flesh
HSI0676	Huang et al. (2015a)	Application of hyperspectral imaging for detection of defective features in nectarine fruit
HSI0677	Xie et al. (2015b)	Detection of early blight and late blight diseases on tomato leaves using hyperspectral imaging
HSI0678	Wang et al. (2015b)	Application of Hyperspectral Imaging for Prediction of Textural Properties of Maize Seeds with Different Storage Periods
HSI0679	Liu et al. (2015)	Detection of hawthorn fruit defects using hyperspectral imaging
HSI0680	Jiang and Li (2015)	MRMR-based feature selection for classification of cotton foreign matter using hyperspectral imaging
HSI0682	Cheng et al. (2015a)	Development of hyperspectral imaging coupled with chemometric analysis to monitor K value for evaluation of chemical spoilage in fish fillets
HSI0683	Zhang et al. (2015b)	Development of a Hyperspectral Imaging System for the Early Detection of Apple Rottenness Caused by Penicillium
HSI0684	Cheng and Sun (2015a)	Data fusion and hyperspectral imaging in tandem with least squares-support vector machine for prediction of sensory quality index scores of fish fillet
HSI0685	Zhang et al. (2015a)	Detection of Early Rottenness on Apples by Using Hyperspectral Imaging Combined with Spectral Analysis and Image Processing

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ID	Authors	Title
HSI0686	Fan et al. (2015)	Prediction of Soluble Solids Content and Firmness of Pears Using Hyperspectral Reflectance Imaging
HSI0689	Li et al. (2015)	Identification of pummelo cultivars based on hyperspectral imaging technology
HSI0690	Cheng et al. (2015b)	Integration of classifiers analysis and hyperspectral imaging for rapid discrimination of fresh from cold-stored and frozen-thawed fish fillets
HSI0692	Martínez Gila et al. (2015)	On-line system based on hyperspectral information to estimate acidity, moisture and peroxides in olive oil samples
HSI0693	Hu et al. (2015)	Estimating blueberry mechanical properties based on random frog selected hyperspectral data
HSI0694	Xiong et al. (2015b)	Non-destructive prediction of thiobarbituric acid reactive substances (TBARS) value for freshness evaluation of chicken meat using hyperspectral imaging
HSI0695	Zhang et al. (2015c)	Application of visible and near-infrared hyperspectral imaging to determine soluble protein content in oilseed rape leaves
HSI0696	Xiong et al. (2015e)	Quantitative determination of total pigments in red meats using hyperspectral imaging and multivariate analysis
HSI0697	Kaneko and Funatsu (2015)	Classification of drug tablets using hyperspectral imaging and wavelength selection with a GAWLS method modified for classification
HSI0699	B. et al. (2015b)	Hyperspectral imaging combined with multivariate analysis and band math for detection of common defects on peaches (Prunus persica)
HSI0700	He and Sun (2015c)	Toward enhancement in prediction of Pseudomonas counts distribution in salmon fillets using NIR hyperspectral imaging
HSI0702	Pu and Sun (2015)	Vis-NIR hyperspectral imaging in visualizing moisture distribution of mango slices during microwave-vacuum drying
HSI0703	Cheng and Sun (2015c)	Rapid Quantification Analysis and Visualization of Escherichia coli Loads in Grass Carp Fish Flesh by Hyperspectral Imaging Method
HSI0704	Kamruzzaman et al. (2015b)	Assessment of Visible Near-Infrared Hyperspectral Imaging as a Tool for Detection of Horsemeat Adulteration in Minced Beef
HSI0705	Rady et al. (2015)	Evaluation of Sugar Content of Potatoes using Hyperspectral Imaging
HSI0706	Wang et al. (2015c)	Shelf-Life Prediction of ‘ Gros Michel ’ Bananas with Different Browning Levels Using Hyperspectral Reflectance Imaging
HSI0707	Mollazade et al. (2015)	Data mining-based wavelength selection for monitoring quality of tomato fruit by backscattering and multispectral imaging
HSI0708	Yang et al. (2015)	Rapid detection of browning levels of lychee pericarp as affected by moisture contents using hyperspectral imaging
HSI0709	Xiong et al. (2015d)	Potential of hyperspectral imaging for rapid prediction of hydroxyproline content in chicken meat
HSI0710	Cheng et al. (2015c)	Suitability of hyperspectral imaging for rapid evaluation of thiobarbituric acid (TBA) value in grass carp (Ctenopharyngodon idella) fillet
HSI0711	Xiong et al. (2015c)	Combination of spectra and texture data of hyperspectral imaging for differentiating between free-range and broiler chicken meats
HSI0712	B. et al. (2015a)	Surface characterisation and classification of microwave pyrolysed maple wood biochar
HSI0714	Wang et al. (2015e)	Near-infrared hyperspectral imaging for detecting Aflatoxin B1 ofmaize kernels
HSI0715	Xiong et al. (2015a)	Application of Visible Hyperspectral Imaging for Prediction of Springiness of Fresh Chicken Meat
HSI0721	Parrag et al. (2015)	Application of hyperspectral imaging to prevent fungal infections of white button mushroom
HSI0723	Qiao et al. (2015)	Identification of main meat species based on spectral characteristics

Table 1.1: Included studies.

ID	Authors	Title
HSI0724	Wu et al. (2015)	Non-destructive detection of defects in Zizphus jujube Mill cv. Lingwu changzao based on near-infrared hyperspectral imaging
HSI0725	Zhao et al. (2015)	Hyperspectral Imaging Coupled with Random Frog and Calibration Models for Assessment of Total Soluble Solids in Mulberries
HSI0727	Kamruzzaman et al. (2015a)	Hyperspectral imaging in tandem with multivariate analysis and image processing for non-invasive detection and visualization of pork adulteration in minced beef
HSI0728	Jin et al. (2015b)	Detection method of multi-target recognition of potato based on fusion of hyperspectral imaging and spectral information
HSI0729	Gao et al. (2015)	Prediction the soluble solid content in sugarcanes by using near infrared hyperspectral imaging system
HSI0730	Liu and Deng (2015)	Measurement of chlorophyll distribution in navel orange leaves based on hyperspectral imaging technique
HSI0732	Xue et al. (2015a)	Application of hyperspectral imaging for detection of natural defective features in huping jujube fruit
HSI0734	Guo and Dong (2015)	Nondestructive detection on firmness of peaches based on hyperspectral imaging and artificial neural networks
HSI0736	Cao et al. (2015)	Identification of species and geographical strains of Sitophilus oryzae and Sitophilus zeamais using the visible/near-infrared hyperspectral imaging technique
HSI0737	Sun et al. (2015)	Identification of pesticide residues on mulberry leaves based on hyperspectral imaging
HSI0738	Xue et al. (2015b)	Ripeness classification of Shajin apricot using hyperspectral imaging technique
HSI0740	Cheng and Sun (2015b)	Rapid and non-invasive detection of fish microbial spoilage by visible and near infrared hyperspectral imaging and multivariate analysis
HSI0743	Guo et al. (2015)	Diagnosis of CTV-Infected Leaves Using Hyperspectral Imaging
HSI0744	Bao et al. (2015)	Rapid identification of coffee bean variety by near infrared hyperspectral imaging technology
HSI0745	Zhao and Peng (2015)	Distribution of beef tenderness grading based on texture features by hyperspectral image analysis
HSI0746	Xie et al. (2015a)	Detection of early blight on tomato leaves using near-infrared hyperspectral imaging technique
HSI0747	Wei et al. (2015)	Identification of slight bruises on winter jujube based on hyperspectral imaging technology
HSI0748	Yu et al. (2015)	Application of hyperspectral imaging for visualization of nitrogen content in pepper leaf with different positions
HSI0750	He et al. (2015)	Determination of pigments concentration of oilseed rape (Brassica napus L.) leaves using hyperspectral imaging
HSI0751	Wang et al. (2015d)	Feasibility of Detecting Aflatoxin B1 on Inoculated Maize Kernels Surface using Vis/NIR Hyperspectral Imaging
HSI0753	Huang et al. (2015b)	Non-destructive detection research for hollow heart of potato based on semi-transmission hyperspectral imaging and SVM
HSI0754	Zhu et al. (2015)	Application of near-infrared hyperspectral imaging to predicting water content in salmon flesh
HSI0756	Ma et al. (2015)	Application of Vis-NIR hyperspectral imaging in classification between fresh and frozen-thawed pork Longissimus Dorsi muscles
HSI0757	He and Sun (2015a)	Inspection of harmful microbial contamination occurred in edible salmon flesh using imaging technology

Table 1.1: Included studies.

ID	Authors	Title
HSI0758	Dai et al. (2015)	Potential of visible/near-infrared hyperspectral imaging for rapid detection of freshness in unfrozen and frozen prawns
HSI0759	Huang et al. (2015c)	Development of a multispectral imaging system for online detection of bruises on apples
HSI0760	Yu et al. (2014a)	Hyperspectral imaging for mapping of total nitrogen spatial distribution in pepper plant
HSI0764	Huang et al. (2014b)	Hyperspectral image-based feature integration for insect-damaged hawthorn detection
HSI0765	Cheng et al. (2014b)	Comparison of Visible and Long-wave Near-Infrared Hyperspectral Imaging for Colour Measurement of Grass Carp (Ctenopharyngodon idella)
HSI0767	Liu et al. (2014a)	Combination of spectra and texture data of hyperspectral imaging for prediction of pH in salted meat
HSI0768	Cheng et al. (2014d)	Variety recognition of Chinese cabbage seeds by hyperspectral imaging combined with machine learning
HSI0769	Zhang et al. (2014c)	Rapid detection of nitrogen content and distribution in oilseed rape leaves based on hyperspectral imaging
HSI0772	He et al. (2014c)	Rapid and non-destructive determination of drip loss and pH distribution in farmed Atlantic salmon (Salmo salar) fillets using visible and near-infrared (Vis-NIR) hyperspectral imaging
HSI0773	Li et al. (2014a)	Non-destructive detection of moisture content in gherkin using hyperspectral imaging
HSI0778	Xie et al. (2014)	Identification of different varieties of sesame oil using near-infrared hyperspectral imaging and chemometrics algorithms
HSI0779	Sun et al. (2014b)	Detection of nitrogen content in lettuce leaves based on spectroscopy and texture using hyperspectral imaging technology
HSI0781	He et al. (2014b)	Potential of hyperspectral imaging combined with chemometric analysis for assessing and visualising tenderness distribution in raw farmed salmon fillets
HSI0782	Huang et al. (2014a)	Near-infrared spectral image analysis of pork marbling based on Gabor filter and wide line detector techniques
HSI0785	Cheng et al. (2014a)	Visible/near-infrared hyperspectral imaging prediction of textural firmness of grass carp (Ctenopharyngodon idella) as affected by frozen storage
HSI0787	Kezhu et al. (2014)	Detection of isoflavones content in soybean based on hyperspectral imaging technology
HSI0789	Zhu et al. (2014a)	Determination and visualization of fat contents in salmon fillets based on visible and near-infrared hyperspectral imagery
HSI0791	Sun et al. (2014a)	Application of hyperspectral imaging technology for detecting adulterate rice
HSI0792	Ma et al. (2014)	Recognition of bruise and pest infestation apple based on hyperspectral imaging technique
HSI0793	Wang et al. (2014c)	Classification and inditification of different level of aflatoxin B1 on maize kernels surface using visible/near infrared reflectance (VIS/NIR) hyperspectral imaging
HSI0795	Yu et al. (2014b)	Application of Visible and Near-Infrared Hyperspectral Imaging for Detection of Defective Features in Loquat
HSI0796	Pu et al. (2014a)	Using Wavelet Textural Features of Visible and Near Infrared Hyperspectral Image to Differentiate Between Fresh and Frozen − Thawed Pork
HSI0797	Dong et al. (2014)	Detection of Thrips Defect on Green-Peel Citrus Using Hyperspectral Imaging Technology Combining PCA and B-Spline Lighting Correction Method
HSI0798	Zhu et al. (2014c)	Rapidly detecting total acid distribution of vinegar culture based on hyperspectral imaging technology

Table 1.1: Included studies.

ID	Authors	Title
HSI0800	Leiva-Valenzuela et al. (2014)	Assessment of internal quality of blueberries using hyperspectral transmittance and reflectance images with whole spectra or selected wavelengths
HSI0803	Siedliska et al. (2014)	Classification models of bruise and cultivar detection on the basis of hyperspectral imaging data
HSI0805	Wang et al. (2014b)	Nondestructive detection for internal qualities of Tan-sheep meat using NIR hyperspectral imaging technique
HSI0806	Pu et al. (2014b)	Hierarchical variable selection for predicting chemical constituents in lamb meats using hyperspectral imaging
HSI0807	Chu et al. (2014)	Hyperspectral optimum wavelengths and fisher discrimination analysis to distinguish different concentrations of aflatoxin on corn kernel surface
HSI0808	Zhu et al. (2014b)	Hyperspectral imaging technology of nitrogen status diagnose for tomato leaves
HSI0810	Cheng et al. (2014e)	Different wavelengths selection methods for identification of early blight on tomato leaves by using hyperspectral imaging technique
HSI0811	Zhang et al. (2014a)	Detection of slight bruises on apples based on hyperspectral imaging and MNF transform
HSI0812	Liu et al. (2014d)	Simultaneous measurement of chlorophyll and water content in navel orange leaves based on hyperspectral imaging
HSI0815	He et al. (2014a)	Rapid and real-time prediction of lactic acid bacteria (LAB) in farmed salmon flesh using near-infrared (NIR) hyperspectral imaging combined with chemometric analysis
HSI0816	Dai et al. (2014)	Potential of hyperspectral imaging for non-invasive determination of mechanical properties of prawn (Metapenaeus ensis)
HSI0818	Wei et al. (2014a)	Ripeness Classification of Astringent Persimmon Using Hyperspectral Imaging Technique
HSI0819	Wu et al. (2014c)	Non-destructive determination of moisture in jujubes based on near-infrared hyperspectral imaging technique
HSI0820	Cheng et al. (2014c)	Non-destructive and rapid determination of TVB-N content for freshness evaluation of grass carp (Ctenopharyngodon idella) by hyperspectral imaging
HSI0821	Liu and Ngadi (2014)	Predicting intramuscular fat content of pork using hyperspectral imaging
HSI0823	Nakamura et al. (2014)	Nature-inspired framework for hyperspectral band selection
HSI0824	Li et al. (2014b)	Development of prediction models for determining N content in citrus leaves based on hyperspectral imaging technology
HSI0825	Kong et al. (2014)	Fast detection of peroxidase (POD) activity in tomato leaves which infected with Botrytis cinerea using hyperspectral imaging
HSI0826	Wu et al. (2014a)	Novel non-invasive distribution measurement of texture profile analysis (TPA) in salmon fillet by using visible and near infrared hyperspectral imaging
HSI0828	B. et al. (2013c)	Detection of bruises and early decay in apples using hyperspectral imaging and PCA
HSI0829	Xie et al. (2013)	Application of time series hyperspectral imaging (ts-hsi) for determining water content within tea leaves during drying
HSI0831	Chen et al. (2013)	Nondestructive measurement of total volatile basic nitrogen (TVB-N) content in salted pork in jelly using a hyperspectral imaging technique combined with efficient hypercube processing algorithms
HSI0833	Wu et al. (2013)	Application of Time Series Hyperspectral Imaging (TS-HSI) for Determining Water Distribution Within Beef and Spectral Kinetic Analysis During Dehydration
HSI0834	B. et al. (2013a)	Examination of the quality of spinach leaves using hyperspectral imaging

Table 1.1: Included studies.

ID	Authors	Title
HSI0835	Zhang et al. (2013a)	Fast identification of watermelon seed variety using near infrared hyperspectral imaging technology
HSI0837	Liu et al. (2013)	Non-destructive detection of water content in fresh pork based on hyperspectral imaging technology
HSI0838	Huang et al. (2013d)	Effectively predicting soluble solids content in apple based on hyperspectral imaging
HSI0844	Huang et al. (2013c)	Development of a multi-spectral imaging system for the detection of bruises on apples
HSI0850	Feng et al. (2013)	Near-infrared hyperspectral imaging and partial least squares regression for rapid and reagentless determination of Enterobacteriaceae on chicken fillets
HSI0851	Barbin et al. (2013a)	Non-destructive determination of chemical composition in intact and minced pork using near-infrared hyperspectral imaging
HSI0853	Feng and Sun (2013b)	Near-infrared hyperspectral imaging in tandem with partial least squares regression and genetic algorithm for non-destructive determination and visualization of Pseudomonas loads in chicken fillets
HSI0856	Serranti et al. (2013a)	The development of a hyperspectral imaging method for the detection of Fusarium-damaged, yellow berry and vitreous Italian durum wheat kernels
HSI0857	ElMasry et al. (2013)	Chemical-free assessment and mapping of major constituents in beef using hyperspectral imaging
HSI0859	Barbin et al. (2013c)	NIR hyperspectral imaging as non-destructive evaluation tool for the recognition of fresh and frozen-thawed porcine longissimus dorsi muscles
HSI0860	He et al. (2013)	Non-destructive and rapid analysis of moisture distribution in farmed Atlantic salmon (Salmo salar) fillets using visible and near-infrared hyperspectral imaging
HSI0861	Iqbal et al. (2013)	Prediction of moisture, color and pH in cooked, pre-sliced turkey hams by NIR hyperspectral imaging system
HSI0862	Kong et al. (2013b)	Early diagnosis of gray mold on tomato stalks based on hyperspectral data
HSI0865	Kamruzzaman et al. (2013)	Fast detection and visualization of minced lamb meat adulteration using NIR hyperspectral imaging and multivariate image analysis
HSI0866	Masaitis et al. (2013)	Spectral reflectance properties of healthy and stressed coniferous trees
HSI0867	Yong-Guang et al. (2013)	Determination of water content in de-Enzyming green tea leaves based on hyper-Spectral imaging
HSI0869	Kong et al. (2013a)	Rice seed cultivar identification using near-infrared hyperspectral imaging and multivariate data analysis
HSI0870	Gao et al. (2013)	Application of hyperspectral imaging technology to discriminate different geographical origins of Jatropha curcas L. seeds
HSI0872	Wang et al. (2013)	Classification of different level of Aflatoxin B1 on corn kernels surface using short-wave infrared reflectance hyperspectral imaging
HSI0874	Wu and Sun (2013b)	Application of visible and near infrared hyperspectral imaging for non-invasively measuring distribution of water-holding capacity in salmon flesh
HSI0875	Dale et al. (2013)	Discrimination of grassland species and their classification in botanical families by laboratory scale NIR hyperspectral imaging: Preliminary results
HSI0876	Wu and Sun (2013c)	Potential of time series-hyperspectral imaging (TS-HSI) for non-invasive determination of microbial spoilage of salmon flesh
HSI0877	Serranti et al. (2013b)	Classification of oat and groat kernels using NIR hyperspectral imaging
HSI0879	Barbin et al. (2013b)	Non-destructive assessment of microbial contamination in porcine meat using NIR hyperspectral imaging

Table 1.1: Included studies.

ID	Authors	Title
HSI0880	Feng and Sun (2013a)	Determination of total viable count (TVC) in chicken breast fillets by near-infrared hyperspectral imaging and spectroscopic transforms
HSI0887	Zhu et al. (2012)	Maize seed classification based on image entropy using hyperspectral imaging technology
HSI0888	Zhang et al. (2012)	Application of hyperspectral imaging and chemometric calibrations for variety discrimination of maize seeds
HSI0891	Yao et al. (2012)	Using vegetation index and modified derivative for early detection of soybean plant injury from glyphosate
HSI0892	Wu et al. (2012b)	Application of long-wave near infrared hyperspectral imaging for measurement of color distribution in salmon fillet
HSI0893	Serranti et al. (2012a)	Hyperspectral-imaging-based techniques applied to wheat kernels characterization
HSI0894	Xiao et al. (2012)	Study on varieties identification of Kentucky bluegrass using hyperspectral imaging and discriminant analysis
HSI0896	Wu et al. (2012a)	Rapid prediction of moisture content of dehydrated prawns using online hyperspectral imaging system
HSI0897	Youngentob et al. (2012)	Using imaging spectroscopy to estimate integrated measures of foliage nutritional quality
HSI0898	Barbin et al. (2012)	Predicting quality and sensory attributes of pork using near-infrared hyperspectral imaging
HSI0899	Zhou et al. (2012)	Comparison of different variable selection methods on potato dry matter detection by hyperspectral imaging technology
HSI0904	Huang et al. (2012)	Detection of bruise and stem-end/calyx of apples using hyperspectral imaging and segmented principal component analysis
HSI0906	Serranti et al. (2012c)	Hyperspectral imaging for process and quality control in recycling plants of polyolefin flakes
HSI0907	Esquerre et al. (2012)	Wavelength selection for development of a near infrared imaging system for early detection of bruise damage in mushrooms (Agaricus bisporus)
HSI0909	Rajkumar et al. (2012)	Studies on banana fruit quality and maturity stages using hyperspectral imaging
HSI0913	Tian et al. (2011)	Diagnosis method of cucumber downy mildew with NIR hyperspectral imaging
HSI0920	Michelsburg et al. (2011)	Spectral band selection for filter design of optical inspection systems [Spektrale Bandselektion für das Filterdesign optischer Inspektionssysteme]
HSI0921	Zhang et al. (2011b)	Fresh and frozen-thawed meat discrimination based on FISS imaging spectral data
HSI0922	Li et al. (2011)	Detection of common defects on oranges using hyperspectral reflectance imaging
HSI0924	Kamruzzaman et al. (2011)	Application of NIR hyperspectral imaging for discrimination of lamb muscles
HSI0928	Elmasry et al. (2011)	Quality classification of cooked, sliced turkey hams using NIR hyperspectral imaging system
HSI0929	Wang et al. (2011)	Optimal wavelength selection of hyperspectral scattering images based o UVE-PLS projection analysis
HSI0930	Shi et al. (2011)	Measurement of chlorophyll content in cucumber leaves based on GA-ICA and hyper-spectral imaging technique
HSI0934	Gosselin et al. (2011)	A hyperspectral imaging sensor for on-line quality control of extruded polymer composite products
HSI0938	Huang et al. (2011)	Study on discrimination of varieties of milk based on FISS imaging spectral data

Table 1.1: Included studies.

ID	Authors	Title
HSI0939	Shahin and Symons (2011)	Detection of Fusarium damaged kernels in Canada Western Red Spring wheat using visible/near-infrared hyperspectral imaging and principal component analysis
HSI0947	Ariana and Lu (2010)	Hyperspectral waveband selection for internal defect detection of pickling cucumbers and whole pickles
HSI0954	Schlerf et al. (2010)	Retrieval of chlorophyll and nitrogen in Norway spruce (Picea abies L. Karst.) using imaging spectroscopy
HSI0958	Peng et al. (2010)	Prediction of chlorophyll content in wheat leaves using hyperspectral images
HSI0964	Peng et al. (2009)	Prediction of chlorophyll content of winter wheat using leaf-level hyperspectral imaging data
HSI0971	ElMasry et al. (2009)	Detecting chilling injury in Red Delicious apple using hyperspectral imaging and neural networks
HSI0988	ElMasry et al. (2008)	Early detection of apple bruises on different background colors using hyperspectral imaging
HSI0989	Peng and Wu (2008)	Hyperspectral scattering profiles for prediction of beef tenderness
HSI0995	Guo et al. (2007)	NIR hyperspectral imaging measurement of sugar content in peach using PLS regression
HSI0998	ElMasry et al. (2007)	Hyperspectral imaging for nondestructive determination of some quality attributes for strawberry
HSI1001	Jun et al. (2007)	Pork quality classification using a hyperspectral imaging system and neural network
HSI1004	Hong et al. (2007)	Non-destructive inspection of Chinese pear quality based on hyperspectral imaging technique
HSI1012	Yang et al. (2006b)	Development of Fuzzy Logic Based Differentiation Algorithm and Fast Line-scan Imaging System for Chicken Inspection
HSI1017	André Weinstock et al. (2006)	Prediction of oil and oleic acid concentrations in individual corn (Zea mays L.) kernels using near-infrared reflectance hyperspectral imaging and multivariate analysis
HSI1021	Yang et al. (2005)	Development of fast line scanning imaging algorithm for diseased chicken detection
HSI1022	Qiao et al. (2005)	Determination of pork quality attributes using hyperspectral imaging technique
HSI1035	Cheng et al. (2004)	A novel integrated PCA and FLD method on hyperspectral image feature extraction for cucumber chilling damage inspection
HSI1043	Kim et al. (2002)	Multispectral Detection of Fecal Contamination on Apples Based on Hyperspectral Imagery: Part I. Application of Visible and Near-Infrared Reflectance Imaging
HSI1044	Park et al. (2002a)	Hyperspectral Imaging for Detecting Fecal and Ingesta Contaminants on Poultry Carcasses
HSIX003	Liu et al. (2021b)	Application of hyperspectral imaging technology for rapid identification of: Ruditapes philippinarum contaminated by heavy metals
HSIX004	Chancia et al. (2021)	Assessing grapevine nutrient status from unmanned aerial system (UAS) hyperspectral imagery
HSIX005	Logan et al. (2021)	Assessing produce freshness using hyperspectral imaging and machine learning
HSIX007	Agrawal and Petersen (2021)	Detecting arsenic contamination using satellite imagery and machine learning
HSIX008	Chi et al. (2021)	Detection of Eggplant External Defects Using Hyperspectral Technology [基于高光谱的茄子外部缺陷检测]

Table 1.1: Included studies.

ID	Authors	Title
HSIX009	Cucuzza et al. (2021)	Effective recycling solutions for the production of high-quality pet flakes based on hyperspectral imaging and variable selection
HSIX010	Baig et al. (2021)	Empirical Mode Decomposition Based Hyperspectral Data Analysis for Brain Tumor Classification
HSIX012	Zhang et al. (2021c)	Hyperspectral Band Selection Based on Improved Particle Swarm Optimization Algorithm [改进粒子群优化算法的高光谱波段选择]
HSIX014	Li et al. (2021b)	Identification of geographical origin of chinese chestnuts using hyperspectral imaging with 1d-cnn algorithm
HSIX019	Bai et al. (2021)	Quantitative detection of fox meat adulteration in mutton by hyper spectral imaging combined with characteristic variables screening [高光谱图像结合特征变量筛选定量检测羊肉中狐狸肉掺假]
HSIX021	Jiang et al. (2021c)	Variety identification of chinese walnuts using hyperspectral imaging combined with chemometrics
HSIX022	Ndisya et al. (2021)	Vis-nir hyperspectral imaging for online quality evaluation during food processing: A case study of hot air drying of purple-speckled cocoyam (colocasia esculenta (l.) schott)
HSIX023	Yahata et al. (2021)	Wavelength Selection of Near-Infrared Hyperspectral Imaging for Gastric Cancer Detection
HSIX024	Dong et al. (2022)	A Combination of Near-Infrared Hyperspectral Imaging with Two-Dimensional Correlation Analysis for Monitoring the Content of Alanine in Beef
HSIX027	Shao et al. (2022)	A new quantitative index for the assessment of tomato quality using Vis-NIR hyperspectral imaging
HSIX028	Samrat et al. (2022)	A Rapid Non-Destructive Hyperspectral Imaging Data Model for the Prediction of Pungent Constituents in Dried Ginger
HSIX032	Gao et al. (2022)	Analysis of protein denaturation, and chemical visualisation, of frozen grass carp surimi containing soluble soybean polysaccharides
HSIX033	Chang et al. (2022)	Application of 3D-volumetric analysis and hyperspectral imaging systems for investigation of heterosis and cytoplasmic effects in pepper
HSIX035	Zhou et al. (2022)	Application of hyperspectral characteristic wavelength selection based on weighted between-class to within-class variance ratio (WBWVR) in aflatoxin B concentration classification of maize flour
HSIX038	Mishra et al. (2022)	Application of SWIR hyperspectral imaging coupled with chemometrics for rapid and non-destructive prediction of Aflatoxin B1 in single kernel almonds
HSIX041	Li et al. (2022f)	Classification Method of Coal and Gangue Based on Hyperspectral Imaging Technology [高光谱成像的煤与矸石分类]
HSIX042	Onmankhong et al. (2022)	Cognitive spectroscopy for the classification of rice varieties: A comparison of machine learning and deep learning approaches in analysing long-wave near-infrared hyperspectral images of brown and milled samples
HSIX043	Qiao et al. (2022a)	Combination of Spectral and Textural Informations of Hyperspectral Imaging for Predictions of Soluble Protein and GSH Contents in Mutton [结合高光谱图像的光谱和纹理信息预测羊肉可溶性蛋白和 GSH 含量]
HSIX047	Jiang et al. (2022c)	Detection and visualization of soybean protein powder in ground beef using visible and near-infrared hyperspectral imaging
HSIX048	Liu et al. (2022b)	Detection of Citrus Granulation Based on Near-Infrared Hyperspectral Data [近红外高光谱的脐橙粒化检测研究]
HSIX049	Mohite et al. (2022)	Detection Of Crop Water Stress In Maize Using Drone Based Hyperspectral Imaging
HSIX050	Huang et al. (2022b)	Detection of early bruises in Gongcheng persimmon using hyperspectral imaging

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ID	Authors	Title
HSIX051	Yuan et al. (2022b)	Detection of early bruises in jujubes based on reflectance, absorbance and Kubelka-Munk spectral data
HSIX052	Pang et al. (2022)	Detection of early bruises on apples using hyperspectral imaging combining with YOLOv3 deep learning algorithm
HSIX054	Zhuang et al. (2022)	Detection of frozen pork freshness by fluorescence hyperspectral image
HSIX055	Shi et al. (2022a)	Detection of Low Chromaticity Difference Foreign Matters in Soy Protein Meat Based on Hyperspectral Imaging Technology [高光谱特征的人造肉中低色度差异物检测]
HSIX056	Florián-Huamán et al. (2022)	Detection of nutshells in cumin powder using NIR hyperspectral imaging and chemometrics tools
HSIX057	Li et al. (2022a)	Detection of skin defects in loquats based on grayscale features combined with reflectance, absorbance, and Kubelka − Munk spectra
HSIX058	Li et al. (2022b)	Detection storage time of mild bruise ' s yellow peaches using the combined hyperspectral imaging and machine learning method
HSIX059	Kingwattanakul et al. (2022)	Determination Lactone Composition in Andrographis paniculata(burm.f.) Wall, ex Nees using hyperspectral imaging
HSIX060	Li et al. (2022g)	Determination of plumpness for kernel of semen ziziphi spinosae use of hyperspectral transmittance imaging technology coupled with improved Otsu algorithm
HSIX061	Baek et al. (2022)	Determination of spectral resolutions for multispectral detection of apple bruises using visible/near-infrared hyperspectral reflectance imaging
HSIX062	Chu et al. (2022b)	Determination of total flavonoid and polysaccharide content in Anoectochilus formosanus in response to different light qualities using hyperspectral imaging
HSIX063	Jin et al. (2022a)	Determination of viability and vigor of naturally-aged rice seeds using hyperspectral imaging with machine learning
HSIX066	Xu et al. (2022c)	Developing deep learning based regression approaches for prediction of firmness and pH in Kyoho grape using Vis/NIR hyperspectral imaging
HSIX067	He et al. (2022)	Discriminant analysis of maize haploid seeds using near-infrared hyperspectral imaging integrated with multivariate methods
HSIX068	Li et al. (2022h)	Discriminant model for field maturity of tobacco leaves based on hyperspectral imaging technology [基于高光谱成像技术的烟叶田间成熟度判别模型]
HSIX069	Kamruzzaman et al. (2022)	Effect of variable selection algorithms on model performance for predicting moisture content in biological materials using spectral data
HSIX070	López-Maestresalas et al. (2022)	Evaluation of near-infrared hyperspectral imaging for the assessment of potato processing aptitude
HSIX071	Feng et al. (2022)	Evaluation of pH in Sausages Stuffed in a Modified Casing with Orange Extracts by Hyperspectral Imaging Coupled with Response Surface Methodology
HSIX072	Li et al. (2022i)	Fast detection of water loss and hardness for cucumber using hyperspectral imaging technology
HSIX076	Liu et al. (2022a)	Fusion of electronic nose and hyperspectral imaging for mutton freshness detection using input-modified convolution neural network
HSIX080	Chen et al. (2022b)	Hyperspectral Imaging for Prediction and Visualization of Water Content and Springiness as Indicators of the Gel Quality of Preserved Eggs [皮蛋凝胶品质含水率和弹性的高光谱预测及其可视化]
HSIX081	Lu et al. (2022)	Hyperspectral imaging with chemometrics for non-destructive determination of cannabinoids in floral and leaf materials of industrial hemp (Cannabis sativa L.)

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ID	Authors	Title
HSIX082	Zhang et al. (2022c)	Hyperspectral imaging-based classification of rice leaf blast severity over multiple growth stages
HSIX083	Zhang et al. (2022h)	Hyperspectral Latent Period Diagnosis of Tomato Gray Mold Based on TLBO-ELM Model [TLBO-ELM 模型的番茄灰霉病高光谱潜育期诊断]
HSIX084	Yu et al. (2022)	Hyperspectral Technique Combined With Deep Learning Algorithm for Prediction of Phenotyping Traits in Lettuce
HSIX086	Li et al. (2022e)	Identification method of soybean seeds with purple spot and moldy based on near infrared hyperspectral imaging technology [基于近红外高光谱成像技术识别紫斑和霉变大豆的方法]
HSIX087	Sun et al. (2022b)	Identification Method of Wheat Grain Mildew Based on Hyperspectral Imaging Technology [基于高光谱成像技术小麦籽粒霉变鉴别方法研究]
HSIX088	Zhang et al. (2022g)	Identification of Early Lodging Resistance of Maize by Hyperspectral Imaging Technology [高光谱成像鉴别玉米品种早期抗倒性]
HSIX089	Cheng et al. (2022b)	Identification of Four Chicken Breeds by Hyperspectral Imaging Combined with Chemometrics
HSIX091	Shaikh and Thörnberg (2022)	Impact of water vapour on polymer classification using in situ short-wave infrared hyperspectral imaging
HSIX092	Hao et al. (2022)	Investigation of the data fusion of spectral and textural data from hyperspectral imaging for the near geographical origin discrimination of wolfberries using 2D-CNN algorithms
HSIX093	Wang et al. (2022g)	Light stress diagnosis of rapeseed seedling stage based on hyperspectral imaging technology [基于高光谱成像技术的油菜苗期光照胁迫诊断]
HSIX094	Hu et al. (2022b)	Maturity Detection of Camellia oleifera by Hyperspectral Imaging [高光谱成像技术检测油茶果成熟度]
HSIX095	Jiang et al. (2022a)	Maturity Stage Discrimination of Camellia oleifera Fruit Using Visible and Near-Infrared Hyperspectral Imaging
HSIX096	Tao et al. (2022)	Near-infrared hyperspectral imaging for evaluation of aflatoxin contamination in corn kernels
HSIX098	Jiang et al. (2022d)	Newly-developed three-band hyperspectral vegetation index for estimating leaf relative chlorophyll content of mangrove under different severities of pest and disease
HSIX099	Song et al. (2022)	Nondestructive classification of soft rot disease in napa cabbage using hyperspectral imaging analysis
HSIX100	Cheng et al. (2022a)	Nondestructive detection and visualization of protein oxidation degree of frozen-thawed pork using fluorescence hyperspectral imaging
HSIX101	Jin et al. (2022b)	Non-Destructive Detection and Visualization of Soybean Moisture Content Using Hyperspectral Technique [大豆水分含量的高光谱无损检测及可视化研究]
HSIX102	Zhang et al. (2022a)	Nondestructive detection for adulteration of panax notoginseng powder based on hyperspectral imaging combined with arithmetic optimization algorithm-support vector regression
HSIX103	Ekramirad et al. (2022)	Nondestructive detection of codling moth infestation in apples using pixel-based nir hyperspectral imaging with machine learning and feature selection
HSIX104	Yao et al. (2022)	Non-destructive detection of egg qualities based on hyperspectral imaging
HSIX105	Shi et al. (2022b)	Nondestructive detection of Panax notoginseng saponins by using hyperspectral imaging
HSIX106	Xu et al. (2022d)	Nondestructive detection of total soluble solids in grapes using VMD-RC and hyperspectral imaging

Table 1.1: Included studies.

ID	Authors	Title
HSIX107	Wang et al. (2022d)	Nondestructive determination of IMP content in chilled chicken based on hyperspectral data combined with chemometrics
HSIX108	Fu et al. (2022)	Nondestructive evaluation of Zn content in rape leaves using MSSAE and hyperspectral imaging
HSIX109	Zhang et al. (2022f)	Nondestructive Prediction of Mechanical Parameters to Apple Using Hyperspectral Imaging by Support Vector Machine
HSIX110	Xu et al. (2022b)	Non-destructive prediction of total soluble solids and titratable acidity in Kyoho grape using hyperspectral imaging and deep learning algorithm
HSIX111	Wang et al. (2022h)	Nutrient content prediction and geographical origin identification of red raspberry fruits by combining hyperspectral imaging with chemometrics
HSIX112	Tushar et al. (2022)	Peanut maturity classification by features extracted from selected hyperspectral components
HSIX116	Xu et al. (2022a)	Predicting internal parameters of kiwifruit at different storage periods based on hyperspectral imaging technology
HSIX117	Pitak et al. (2022)	Predicting the true density of commercial biomass pellets using near-infrared hyperspectral imaging
HSIX118	Wang et al. (2022f)	Prediction of chemical indicators for quality of Zanthoxylum spices from multi-regions using hyperspectral imaging combined with chemometrics
HSIX119	Zou et al. (2022)	Prediction of peanut seed vigor based on hyperspectral images
HSIX120	Md Saleh et al. (2022)	Prediction of total carotenoids, color, and moisture content of carrot slices during hot air drying using non-invasive hyperspectral imaging technique
HSIX123	Kim et al. (2022)	Quantitative detection of benzoyl peroxide in wheat flour using line-scan short-wave infrared hyperspectral imaging
HSIX124	Li et al. (2022c)	Quantitative study of impact damage on yellow peaches based on reflectance, absorbance and Kubelka-Munk spectral data
HSIX125	Wang et al. (2022i)	Rapid and Non-destructive Classification of New and Aged Maize Seeds Using Hyperspectral Image and Chemometric Methods
HSIX126	Kong et al. (2022)	Rapid and nondestructive detection of marine fishmeal adulteration by hyperspectral imaging and machine learning
HSIX127	Jiang et al. (2022b)	Rapid and non-destructive detection of natural mildew degree of postharvest Camellia oleifera fruit based on hyperspectral imaging
HSIX128	Chen et al. (2022c)	Rapid Detection of Different Types of Soil Nitrogen Using Near-Infrared Hyperspectral Imaging
HSIX129	Fan et al. (2022)	Rapid Determination of TBARS Contents in Tan Mutton Using Hyperspectral Imaging [滩羊肉冷藏期间 TBARS 含量的高光谱检测]
HSIX130	Wu et al. (2022)	Rapid nondestructive detection of peanut varieties and peanut mildew based on hyperspectral imaging and stacked machine learning models
HSIX131	Sharma et al. (2022)	Rapid ripening stage classification and dry matter prediction of durian pulp using a pushbroom near infrared hyperspectral imaging system
HSIX132	Li et al. (2022j)	Research on classification and recognition of non-tobacco related material (NTRM) based on hyperspectral imaging technology [高光谱成像的非烟物质分类识别研究]
HSIX133	Zhang et al. (2022d)	Research on classification method of flue-cured tobacco based on fusion of hyperspectral and texture features [基于高光谱与纹理融合的烤烟分类方法研究]
HSIX134	Ge et al. (2022)	Research on detecting chilling injury of kiwifruit based on hyperspectral imaging technology

Table 1.1: Included studies.

ID	Authors	Title
HSIX135	An et al. (2022)	Robustness and accuracy evaluation of moisture prediction model for black tea withering process using hyperspectral imaging
HSIX137	Wang et al. (2022c)	Soluble Solids Content prediction for Korla fragrant pears using hyperspectral imaging and GsMIA
HSIX138	Navarro et al. (2022)	Sorting biotic and abiotic stresses on wild rocket by leaf-image hyperspectral data mining with an artificial intelligence model
HSIX139	Xuan et al. (2022)	Spectral and image analysis of hyperspectral data for internal and external quality assessment of peach fruit
HSIX141	Huang et al. (2022a)	Spectral Selection Method Based on Ant Colony-Genetic Algorithm [基于蚁群D 遗传算法的光谱选择方法与应用]
HSIX144	Luo et al. (2022)	Spectrum classification of citrus tissues infected by fungi and multispectral image identification of early rotten oranges
HSIX146	Zhang et al. (2022b)	Study on Nondestructive Identification of Panax Notoginseng Powder Quality Grade Based on Hyperspectral Imaging Technology [高光谱成像的三七粉质量等级无损鉴别]
HSIX147	Yuan et al. (2022c)	Study on the optimization of hyperspectral characteristic bands combined with monitoring and visualization of pepper leaf spad value
HSIX148	Wang et al. (2022b)	SVM Classification Method of Waxy Corn Seeds with Different Vitality Levels Based on Hyperspectral Imaging
HSIX149	Sun et al. (2022a)	Tea stalks and insect foreign bodies detection based on electromagnetic vibration feeding combination of hyperspectral imaging
HSIX150	Thien Pham and Liou (2022)	The development of on-line surface defect detection system for jujubes based on hyperspectral images
HSIX151	Fernóndez-Rosales et al. (2022)	Tomato pesticide residue detection method based on hyperspectral imaging [Método para la detección de residuos de plaguicidas en tomate, basado en imágenes hiperespectrales]
HSIX153	Li et al. (2022d)	Two-wavelength image detection of early decayed oranges by coupling spectral classification with image processing
HSIX155	Xu et al. (2022e)	Vigor identification of maize seeds by using hyperspectral imaging combined with multivariate data analysis
HSIX156	Sankararao et al. (2022)	Water Stress Detection in Pearl Millet Canopy with Selected Wavebands using UAV Based Hyperspectral Imaging and Machine Learning
HSIX157	Shiddiq et al. (2022)	Wavelength selection of multispectral imaging for oil palm fresh fruit ripeness classification
HSIX158	Wang et al. (2023)	Application of hyperspectral imaging assisted with integrated deep learning approaches in identifying geographical origins and predicting nutrient contents of Coix seeds
HSIX159	Saha et al. (2023)	Application of near-infrared hyperspectral imaging coupled with chemometrics for rapid and non-destructive prediction of protein content in single chickpea seed
HSIX160	Guo et al. (2023)	Application of visible-near-infrared hyperspectral imaging technology coupled with wavelength selection algorithm for rapid determination of moisture content of soybean seeds
HSIX161	Li et al. (2023b)	Combining Vis-NIR and NIR hyperspectral imaging techniques with a data fusion strategy for the rapid qualitative evaluation of multiple qualities in chicken
HSIX162	Qiu et al. (2023)	Development and comparison of classification models on VIS-NIR hyperspectral imaging spectra for qualitative detection of the Staphylococcus aureus in fresh chicken breast

Table 1.1: Included studies.

ID	Authors	Title
HSIX163	He et al. (2023)	Hyperspectral imaging combined with chemometrics for rapid detection of talcum powder adulterated in wheat flour
HSIX164	Sun et al. (2023)	Non-destructive assessment of equivalent umami concentrations in salmon using hyperspectral imaging technology combined with multivariate algorithms
HSIX165	Li et al. (2023a)	Quantitative study on impact damage of yellow peach based on hyperspectral image information combined with spectral information

Table 1.1: Included studies.

1.2 Excluded studies

ID	Authors	Title	Exclusion reason
HSI0571	Sawyer and Bohndiek (2017b)	Towards a simulation framework to maximize the resolution of biomedical hyperspectral imaging	Duplicate
HSIX031	Kääriäinen and Dönsberg (2022a)	Active hyperspectral imager based on a supercontinuum laser and a MEMS Fabry-Pérot interferometer	Duplicate
HSI0004	Wang et al. (2021f)	Hyperspectral-attention mechanism-based improvement of radiomics prediction method for primary liver cancer	Empirical results
HSI0026	Martin et al. (2021)	Data reduction and calibration accuracy of the imaging Fourier transform spectrometer SITELLE	Empirical results
HSI0103	Liu et al. (2020d)	Discriminant analysis of the damage degree caused by pine shoot beetle to yunnan pine using UAV-based hyperspectral images	Empirical results
HSI0127	Abdulridha et al. (2020)	Detection of target spot and bacterial spot diseases in tomato using UAV-based and benchtop-based hyperspectral imaging techniques	Empirical results
HSI0206	Hakola and Pölönen (2020)	Minimal learning machine in hyperspectral imaging classification	Empirical results
HSI0210	Wang et al. (2020e)	Sprayed or soaked concealed drug detection using swir hyperspectral imaging	Empirical results
HSI0213	Chauvin et al. (2020a)	Reconstruction of hyperspectral spectra of fish fillets using multi-wavelength imaging and point spectroscopy	Empirical results
HSI0260	Sawyer et al. (2019a)	Spectral band selection and tolerancing for multispectral filter arrays	Empirical results
HSI0286	Chen et al. (2019a)	True-color three-dimensional imaging and target classification BASED on hyperspectral LiDAR	Empirical results
HSI0310	Jha et al. (2019)	Characterization of species diversity and forest health using AVIRIS-NG hyperspectral remote sensing data	Empirical results
HSI0336	Sawyer et al. (2019b)	Spectral band selection and tolerancing for multispectral filter arrays	Empirical results
HSI0343	Lee et al. (2019)	Near-infrared hyperspectral imaging for detection of bacterial fruit blotch in watermelon seedlings	Empirical results
HSI0380	Wang et al. (2018a)	LEMONY - a library of empirical medium-resolution spectra by observations with the NAOC Xinglong 2.16-m and YNAO Gaomeigu 2.4-m telescopes	Empirical results
HSI0412	Hu et al. (2018)	Application of Vis-NIR hyperspectral imaging in agricultural products detection	Empirical results
HSI0415	Placco et al. (2018)	Spectroscopic Validation of Low-metallicity Stars from RAVE	Empirical results
HSI0434	Liao et al. (2018)	Constrained Manifold Learning for Hyperspectral Imagery Visualization	Empirical results
HSI0470	Wei et al. (2018)	Context free band reduction using a convolutional neural network	Empirical results
HSI0471	Kosanke et al. (2018)	High-resolution hyperspectral imaging technology: Subsurface characterization through multi-discipline integration	Empirical results
HSI0515	Peiyuan et al. (2017)	The bacon quality grade intellectual pattern recognition based on neural network of hyperspectral imaging	Empirical results

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0554	Calin et al. (2017)	An analysis of human dorsal hand skin texture using hyperspectral imaging technique for assessing the skin aging process	Empirical results
HSI0567	Chen et al. (2017a)	Hyperspectral image segmentation for maize stubble in no-till field	Empirical results
HSI0570	Sawyer and Bohndiek (2017a)	Towards a simulation framework to maximize the resolution of biomedical hyperspectral imaging	Empirical results
HSI0578	Raviteja et al. (2017)	A new methodology of hierarchical image fusion in framework for hyperspectral image segmentation	Empirical results
HSI0593	Katsoulas et al. (2016)	Calibration methodology of a hyperspectral imaging system for greenhouse plant water status assessment	Empirical results
HSI0652	Parashar et al. (2016)	Identification and mapping of minerals by using imaging spectroscopy in southeastern region of Rajasthan	Empirical results
HSI0717	Ching and Matjafri (2015)	Guava defect detection using hyperspectral imaging with fluorescent light source	Empirical results
HSI0731	Berisha et al. (2015)	Estimation of atmospheric PSF parameters for hyperspectral imaging	Empirical results
HSI0733	Cakmak et al. (2015)	Superpixel based classification of hyperspectral images [Hiperspektral Görüntülerde Süperpiksel Temelli Siniflandirma]	Empirical results
HSI0804	B. and Asner (2014)	Tree species mapping in tropical forests using multi-temporal imaging spectroscopy: Wavelength adaptive spectral mixture analysis	Empirical results
HSI0841	Beamín et al. (2013)	One more neighbor: The first brown dwarf in the VVV survey	Empirical results
HSI0883	Levaux et al. (2012)	Contrast based band selection for optimized weathered oil detection in hyperspectral images	Empirical results
HSI0885	Ruxton et al. (2012b)	Infrared hyperspectral imaging for chemical vapour detection	Empirical results
HSI0903	Fassnacht et al. (2012)	An angular vegetation index for imaging spectroscopy data-Preliminary results: On forest damage detection in the Bavarian National Park, Germany	Empirical results
HSI0919	Liu et al. (2011)	Calibration of an AOTF hyperspectral imager with configurable spectral selectivity	Empirical results
HSI0925	Zhang et al. (2011a)	Detecting navel orange canker with hyperspectral imaging	Empirical results
HSI0936	Dacal-Nieto et al. (2011)	Rapid infrared multi-spectral systems design using a hyperspectral benchmarking framework	Empirical results
HSI0944	Li et al. (2010)	Adaptive non-dominated sorting genetic algorithms for wavelength selection of molecular hyperspectral images	Empirical results
HSI0945	Lu et al. (2010)	Target discrimination via optimal wavelength band selection with synthetic hyperspectral imagery	Empirical results
HSI0974	Zortea and Antonio Plaza (2008)	Improved spectral unmixing of hyperspectral images using spatially homogeneous endmembers	Empirical results
HSI0982	Conde et al. (2008)	Adaptive illumination source for multispectral vision system applied to material discrimination	Empirical results
HSI0985	DuBois and Neil Lewis (2008)	What's in that medicine?	Empirical results

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI1000	MacKinnon et al. (2007)	Hyperspectral imaging and spectral unmixing of stained tissue sections using a spectrally programmable light engine	Empirical results
HSI1042	Jellison et al. (2002)	Development of a watershed algorithm for multi-resolution, multi-dimensional clustering of hyperspectral data	Empirical results
HSI1063	Torr et al. (1982)	Spectroscopic imaging of the thermosphere from the space shuttle	Empirical results
HSIX001	Huang et al. (2020b)	UAV-carried Hyperspectral Imaging System to Recognize the Bloodstain on Bitumen Road	Empirical results
HSIX034	Hu et al. (2022a)	Application of BP neural network and variable selection method in protein content detection of milk [BP 神经网络结合变量选择方法在牛奶蛋白质含量检测中的应用]	Empirical results
HSIX036	Yuan et al. (2022a)	Application of hyperspectral imaging to discriminate waxy corn seed vigour after aging	Empirical results
HSIX053	Yin et al. (2022)	Detection of early bruises on loquat using hyperspectral imaging technology coupled with band ratio and improved Otsu method	Empirical results
HSIX143	Kim (2022)	Spectroscopic imaging ellipsometry for two-dimensional thin film thickness measurement using a digital light processing projector	Empirical results
HSIX145	Zhao et al. (2022)	Striping noise removal method in meat detection based on hyperspectral imaging [基于高光谱成像的肉品检测去条带噪声方法]	Empirical results
HSIX152	Hassanzadeh et al. (2022)	Toward Crop Maturity Assessment via UAS-Based Imaging Spectroscopy-A Snap Bean Pod Size Classification Field Study	Empirical results
HSIX025	Aeberli et al. (2022)	A Comparison of Analytical Approaches for the Spectral Discrimination and Characterisation of Mite Infestations on Banana Plants	Multispectral
HSIX029	Hou et al. (2022)	A study on water quality parameters estimation for urban rivers based on ground hyperspectral remote sensing technology	Multispectral
HSIX044	Cao et al. (2022)	Combining multispectral and hyperspectral data to estimate nitrogen status of tea plants (Camellia sinensis (L.) O. Kuntze) under field conditions	Multispectral
HSIX114	Mukundan et al. (2022)	Portable and low-cost hologram verification module using a snapshot-based hyperspectral imaging algorithm	Multispectral
HSIX115	Zhang et al. (2022e)	Predicting Copper and Lead Concentration in Crops Using Reflectance Spectroscopy Associated With Intrinsic Wavelength-Scale Decomposition Spectral Transformation	Multispectral
HSIX121	Schumacher et al. (2022)	Problem-Specific Optimized Multispectral Sensing for Improved Quantification of Plant Biochemical Constituents	Multispectral
HSIX136	Chauvin et al. (2022)	Simulated Annealing-Based Wavelength Selection for Robust Tissue Oxygenation Estimation Powered by the Extended Modified Lambert − Beer Law	Multispectral
HSIX140	Chen et al. (2022a)	Spectral inversion model of the crushing rate of soybean under mechanized harvesting	Multispectral
HSI0012	Zhu et al. (2021b)	Mid-infrared multispectral confocal microscope using off-axis parabolic mirrors to study epiretinal membranes	Multispectral

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0014	Van Manen et al. (2021)	Detection of cutaneous oxygen saturation using a novel snapshot hyperspectral camera: A feasibility study	Multispectral
HSI0025	Pronti et al. (2021)	Optimized method for mapping inorganic pigments by means of multispectral imaging combined with hyperspectral spectroscopy for the study of vincenzo pasqualoni ' s wall painting at the basilica of S. Nicola in carcere in rome	Multispectral
HSI0051	Xiao et al. (2021a)	StO2 Stress Detection Based on Fewer Wavelengths through Linear Prediction Algorithm	Multispectral
HSI0053	Khosravi et al. (2021)	Satellite imagery for monitoring and mapping soil chromium pollution in a mine waste dump	Multispectral
HSI0084	Xiao et al. (2021b)	A Random Forest-Based Algorithm to Distinguish Ulva prolifera and Sargassum From Multispectral Satellite Images	Multispectral
HSI0090	Hwang et al. (2021)	Development of fluorescence imaging technique to detect fresh-cut food organic residue on processing equipment surface	Multispectral
HSI0145	Concepcion et al. (2020)	Estimation of photosynthetic growth signature at the canopy scale using new genetic algorithm-modified visible band triangular greenness index	Multispectral
HSI0173	Hong and Abd El-Hamid (2020)	Hyperspectral imaging using multivariate analysis for simulation and prediction of agricultural crops in Ningxia, China	Multispectral
HSI0183	Giannoni et al. (2020)	Investigation of the quantification of hemoglobin and cytochrome-c-oxidase in the exposed cortex with near-infrared hyperspectral imaging: A simulation study	Multispectral
HSI0216	Taherkhani et al. (2020)	Deep sparse band selection for hyperspectral face recognition	Multispectral
HSI0237	Munera et al. (2019)	Discrimination of astringent and deastringed hard ' Rojo Brillante ' persimmon fruit using a sensory threshold by means of hyperspectral imaging	Multispectral
HSI0256	Drossart (2019)	H3+ as an ionospheric sounder of Jupiter and giant planets: An observational perspective	Multispectral
HSI0263	Lin et al. (2019b)	Discrete Wavelengths Screening Method for the Near-Infrared Spectroscopic Analysis of Serum Glucose	Multispectral
HSI0264	Peng et al. (2019a)	Quantitative Inversion of Water Quality Parameters in Industrial and Mining Cities from Hyperspectral Remote Sensing [工矿业城市区域水质参数高光谱定量反演]	Multispectral
HSI0267	Li et al. (2019f)	Fingerprinting a living cell by raman integrated mid-infrared photothermal microscopy	Multispectral
HSI0268	Suzuki et al. (2019)	Label-free chemical imaging flow cytometry by high-speed multicolor stimulated Raman scattering	Multispectral
HSI0270	Lu et al. (2019b)	Prediction of Tea Diseases Based on Fluorescence Transmission Spectrum and Texture of Hyperspectral Image [基于荧光透射谱和高光谱图像纹理的茶叶病害预测研究]	Multispectral
HSI0291	Taherkhani et al. (2019)	Hyperspectral Band Selection for Face Recognition Based on a Structurally Sparsified Deep Convolutional Neural Networks	Multispectral
HSI0321	Lin et al. (2019a)	Geographically weighted regression effects on soil zinc content hyperspectral modeling by applying the fractional-order differential	Multispectral
HSI0324	Hosking et al. (2019)	Hyperspectral imaging in automated digital dermoscopy screening for melanoma	Multispectral

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0358	Van Manen et al. (2019)	Snapshot hyperspectral imaging for detection of breast tumors in resected specimens	Multispectral
HSI0360	Deal et al. (2019)	Optimizing channel selection for excitation-scanning hyperspectral imaging	Multispectral
HSI0362	Krause et al. (2019)	Hyperspectral reflectance-derived relationship matrices for genomic prediction of grain yield in wheat	Multispectral
HSI0370	Senthilkumar et al. (2018)	Face Recognition Using Hyperspectral Imaging and Deep Learning	Multispectral
HSI0373	Berger et al. (2018)	Model-based optimization of spectral sampling for the retrieval of crop variables with the PROSAIL model	Multispectral
HSI0386	Chen et al. (2018b)	Feasibility Study of Ore Classification Using Active Hyperspectral LiDAR	Multispectral
HSI0433	Munera et al. (2018)	Potential of VIS-NIR hyperspectral imaging and chemometric methods to identify similar cultivars of nectarine	Multispectral
HSI0469	Rahman et al. (2018b)	Quality analysis of stored bell peppers using near-infrared hyperspectral imaging	Multispectral
HSI0475	Seo et al. (2018)	Morphological image analysis for foodborne bacteria classification	Multispectral
HSI0479	Ishida et al. (2018)	A novel approach for vegetation classification using UAV-based hyperspectral imaging	Multispectral
HSI0486	Izzuddin et al. (2017)	The development of spectral indices for early detection of Ganoderma disease in oil palm seedlings	Multispectral
HSI0488	Lorenzo et al. (2017)	Optimized mid-infrared thermal emitters for applications in aircraft countermeasures	Multispectral
HSI0509	Saarinen et al. (2017)	UAV-based photogrammetric point clouds and hyperspectral imaging for mapping biodiversity indicators in boreal forests	Multispectral
HSI0523	Tahmasbian et al. (2017)	The potential of hyperspectral images and partial least square regression for predicting total carbon, total nitrogen and their isotope composition in forest litterfall samples	Multispectral
HSI0534	Heiner et al. (2017)	Surface-enhanced hyper Raman hyperspectral imaging and probing in animal cells	Multispectral
HSI0550	Wei et al. (2017)	Simple mineral mapping algorithm based on multitype spectral diagnostic absorption features: A case study at Cuprite, Nevada	Multispectral
HSI0553	Munera et al. (2017a)	Non-destructive assessment of the internal quality of intact persimmon using colour and VIS/NIR hyperspectral imaging	Multispectral
HSI0557	Munera et al. (2017b)	Astringency assessment of persimmon by hyperspectral imaging	Multispectral
HSI0575	Leemans et al. (2017)	Estimation of leaf nitrogen concentration on winter wheat by multispectral imaging	Multispectral
HSI0604	Verdú et al. (2016)	Spectral study of heat treatment process of wheat flour by VIS/SW-NIR image system	Multispectral
HSI0621	Vítek et al. (2016)	Raman imaging in geomicrobiology: endolithic phototrophic microorganisms in gypsum from the extreme sun irradiation area in the Atacama Desert	Multispectral
HSI0623	Seo et al. (2016)	Identification of Staphylococcus species with hyperspectral microscope imaging and classification algorithms	Multispectral

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0630	Wan et al. (2016)	Oil spills identification using hyperspectral imaging based on multi-pattern method	Multispectral
HSI0644	Han et al. (2016b)	Detection method of marine oil spilling and emulsified oil based on hyperspectral imaging under UV induction	Multispectral
HSI0661	Alexandrino et al. (2016)	Classical least squares combined with spectral interval selection using genetic algorithm for prediction of constituents in pharmaceutical solid dosage forms from near infrared chemical imaging data	Multispectral
HSI0663	McManus et al. (2016)	Phylogenetic structure of foliar spectral traits in tropical forest canopies	Multispectral
HSI0666	Han et al. (2016a)	Oil adulteration identification by hyperspectral imaging using QHM and ICA	Multispectral
HSI0667	Han et al. (2016c)	In vivo use of hyperspectral imaging to develop a noncontact endoscopic diagnosis support system for malignant colorectal tumors	Multispectral
HSI0716	B. (2015)	AOTF Hyperspectral Imaging for Foodborne Pathogen Detection	Multispectral
HSI0766	Teena et al. (2014)	Near infrared (NIR) hyperspectral imaging to classify fungal infected date fruits	Multispectral
HSI0777	Cen et al. (2014)	Hyperspectral Imaging-Based Classification and Wavebands Selection for Internal Defect Detection of Pickling Cucumbers	Multispectral
HSI0813	Fu et al. (2014)	Distinguishing overripe berries of Japanese blue honeysuckle using hyperspectral imaging analysis	Multispectral
HSI0814	Vélez Rivera et al. (2014)	Early detection of mechanical damage in mango using NIR hyperspectral images and machine learning	Multispectral
HSI0817	Mahesh et al. (2014)	Comparing two statistical discriminant models with a back-propagation neural network model for pairwise classification of location and crop year specific wheat classes at three selected moisture contents using nir hyperspectral images	Multispectral
HSI0822	Yang et al. (2014)	Band selection algorithm for hyperspectral imagery based on K-L divergence and spectral divisibility distance	Multispectral
HSI0830	Lorente et al. (2013b)	Comparison of ROC Feature Selection Method for the Detection of Decay in Citrus Fruit Using Hyperspectral Images	Multispectral
HSI0843	B. et al. (2013b)	The age estimation of blood stains up to 30 days old using visible wavelength hyperspectral image analysis and linear discriminant analysis	Multispectral
HSI0855	Huang et al. (2013a)	Hyperspectral image classification of maize seeds based on active contour model	Multispectral
HSI0858	Sanchez-Marin (2013)	Principal wavelengths in the formation of spectral images of natural scenes	Multispectral
HSI0863	Lorente et al. (2013a)	Selection of Optimal Wavelength Features for Decay Detection in Citrus Fruit Using the ROC Curve and Neural Networks	Multispectral
HSI0889	Wiederoder et al. (2012a)	Detection of fresh-cut produce processing residues on food contact surface materials using hyperspectral imaging	Multispectral
HSI0901	Gadaleta et al. (2012)	Autonomous target dependent waveband selection for tracking in performance-driven hyperspectral sensing	Multispectral
HSI0902	Wiederoder et al. (2012b)	Detection of fresh-cut produce processing residues on food contact surface materials using hyperspectral imaging	Multispectral

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0912	Singh et al. (2012)	Fungal damage detection in wheat using short-wave near-infrared hyperspectral and digital colour imaging	Multispectral
HSI0926	Klaessens et al. (2011a)	Hyperspectral imaging system for imaging O2Hb and HHb concentration changes in tissue for various clinical applications	Multispectral
HSI0927	Klaessens et al. (2011b)	Objective methods for achieving an early prediction of the effectiveness of regional block anesthesia using thermography and hyper-spectral imaging	Multispectral
HSI0933	Qin et al. (2011)	Detection of organic residues on poultry processing equipment surfaces by LED-induced fluorescence imaging	Multispectral
HSI0940	Qin et al. (2010)	Detection of organic residues on food processing equipment surfaces by spectral imaging method	Multispectral
HSI0943	Sumriddetchkajorn et al. (2010)	Two-wavelength spectral imaging-based Thai rice breed identification	Multispectral
HSI0949	Singh et al. (2010b)	Identification of insect-damaged wheat kernels using short-wave near-infrared hyperspectral and digital colour imaging	Multispectral
HSI0953	Chai et al. (2010)	Identification of cucumber disease using hyperspectral imaging and discriminate analysis	Multispectral
HSI0959	Singh et al. (2010a)	Detection of midge-damaged wheat kernels using short-wave near-infrared hyperspectral and digital colour imaging	Multispectral
HSI0960	Kandasamy et al. (2009)	Optimal band selection for future satellite sensor dedicated to soil science	Multispectral
HSI0963	Kim et al. (2009)	A non-continuous wavelength scanning strategy for electrically tunable liquid-crystal hyperspectral imaging array	Multispectral
HSI0970	Koh et al. (2009)	Visible and near infrared autofluorescence and hyperspectral imaging spectroscopy for the investigation of colorectal lesions and detection of exogenous fluorophores	Multispectral
HSI0973	Choudhary et al. (2009)	Identification of wheat classes using wavelet features from near infrared hyperspectral images of bulk samples	Multispectral
HSI0983	Gómez-Sanchis et al. (2008)	Segmentation of hyperspectral images for the detection of rotten mandarins	Multispectral
HSI0997	Du et al. (2007)	Band selection of hyperspectral images for automatic detection of poultry skin tumors	Multispectral
HSI1002	Styp-Rekowska et al. (2007)	An imaging spectroscopy approach for measurement of oxygen saturation and hematocrit during intravital microscopy	Multispectral
HSI1011	Yang et al. (2006a)	Development of online line-scan imaging system for chicken inspection and differentiation	Multispectral
HSI1014	Ye et al. (2006)	Estimation of citrus yield from airborne hyperspectral images using a neural network model	Multispectral
HSI1024	Xing and De Baerdemaeker (2005)	Bruise detection on 'Jonagold' apples using hyperspectral imaging	Multispectral
HSI1029	Michael Attas (2004)	Enhancement of document legibility using spectroscopic imaging	Multispectral
HSI1032	Park et al. (2004a)	Real-time image processing for rapid contaminant detection on broiler carcasses	Multispectral
HSI1037	Mutanga and Skidmore (2004)	Classification of hyperspectral imagery for identifying fecal and ingesta contaminants	Multispectral

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI1038	Cogdill et al. (2004)	Classification of hyperspectral imagery for identifying fecal and ingesta contaminants	Multispectral
HSI1039	Windham et al. (2003)	Algorithm development with visible/near-infrared spectra for detection of poultry feces and ingesta	Multispectral
HSI1045	Foy et al. (2002)	Comparisons between hyperspectral passive and multispectral active sensor measurements	Multispectral
HSI1047	Rodriguez-Diaz et al. (2000)	Wavelength selection for imaging hemoglobin in skin	Multispectral
HSI1053	Tomatis et al. (1998)	Spectrophotometric imaging of cutaneous pigmented lesions: Discriminant analysis, optical properties and histological characteristics	Multispectral
HSI1059	Tomatis et al. (1995)	Reflectance imaging spectroscopy: A possible aid in the clinical diagnosis of melanoma	Multispectral
HSI0086	author name available] (2021)	Global Intelligent Industry Conference 2020	Other
HSI0129	Torai et al. (2020)	Application of AI Technology to Smart Agriculture: Detection of Plant Diseases	Other
HSI0089	Saha and Manickavasagan (2021)	Machine learning techniques for analysis of hyperspectral images to determine quality of food products: A review	Review
HSI0217	Hennessy et al. (2020)	Hyperspectral classification of plants: A review of waveband selection generalisability	Review
HSI0304	Malenovský et al. (2019)	Variability and Uncertainty Challenges in Scaling Imaging Spectroscopy Retrievals and Validations from Leaves Up to Vegetation Canopies	Review
HSI0401	Hobro and Smith (2018)	Vibrational spectroscopic imaging of pathogens, microorganisms, and their interactions with host systems	Review
HSI0455	Prieto et al. (2018)	Application of hyperspectral imaging on meat and meat products	Review
HSI0478	Su and Sun (2018)	Multispectral Imaging for Plant Food Quality Analysis and Visualization	Review
HSI0626	Kamruzzaman and Sun (2016)	Introduction to Hyperspectral Imaging Technology	Review
HSI0701	Wang et al. (2015a)	Fruit quality evaluation using spectroscopy technology: A review	Review
HSI0726	Pu et al. (2015)	Selection of feature wavelengths for developing multispectral imaging systems for quality, safety and authenticity of muscle foods-a review	Review
HSI0783	Liu et al. (2014b)	Recent advances in wavelength selection techniques for hyperspectral image processing in the food industry	Review
HSI0832	Tao et al. (2013)	Application of near infrared reflectance spectroscopy to predict meat chemical compositions: A review	Review
HSI0848	Wu and Sun (2013a)	Advanced applications of hyperspectral imaging technology for food quality and safety analysis and assessment: A review - Part II: Applications	Review
HSI0908	Boldrini et al. (2012)	Hyperspectral imaging: A review of best practice, performance and pitfalls for in-line and on-line applications	Review

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0937	Plaza et al. (2011)	High Performance Computing for Hyperspectral Remote Sensing	Review
HSI1003	Wang et al. (2007)	Spectral imaging techniques for food quality evaluation	Review
HSI1033	LaPlant (2004)	Factors affecting NIR chemical images of solid dosage forms	Review
HSIX097	Reddy et al. (2022)	Near-Infrared Hyperspectral Imaging Pipelines for Pasture Seed Quality Evaluation: An Overview	Review
HSI0016	Zhu et al. (2021a)	Development and optimization of a low-cost and portable multispectral imaging system [低成本便携式多光谱成像系统的研发及优化]	System
HSI0062	Zhou et al. (2021a)	Optimized Tamm-plasmon structure by Differential Evolution algorithm for single and dual peaks hot-electron photodetection	System
HSI0078	Prentice et al. (2021)	Design of a Hyperspectral Imager Using COTS Optics for Small Satellite Applications	System
HSI0121	Tripathi and Garg (2020)	First impressions from the PRISMA hyperspectral mission	System
HSI0128	Green and Thompson (2020)	An Earth Science Imaging Spectroscopy Mission: The Earth Surface Mineral Dust Source Investigation (EMIT)	System
HSI0176	Cai et al. (2020)	Compact Dual-Channel (Hyperspectral and Video) Endoscopy	System
HSI0218	Zhou et al. (2020b)	Development of a new polarized hyperspectral imaging microscope	System
HSI0281	Pagano et al. (2019)	CubeSat Infrared Atmospheric Sounder technology development status	System
HSI0327	Qin et al. (2019)	Advances in Raman spectroscopy and imaging techniques for quality and safety inspection of horticultural products	System
HSI0354	Ahmido et al. (2019)	Target discrimination using agile multispectral LiDAR	System
HSI0383	Ranganathan et al. (2018)	Lenslet Array and Fabry-Pérot Based Hyperspectral Imaging	System
HSI0390	Heimpold et al. (2018)	LED for hyperspectral imaging-a new selection method	System
HSI0457	Machikhin et al. (2018)	Spectrally tunable illumination system based on acousto-optic diffraction of light	System
HSI0472	Sebastian et al. (2018)	On-ground calibration of DESIS: DLR's Earth Sensing Imaging Spectrometer for the International Space Station (ISS)	System
HSI0577	Klomkaew et al. (2017)	Testing a high-power LED based light source for hyperspectral imaging microscopy	System
HSI0588	Xue et al. (2016)	A design of multi-band wide spectrum high-definition remote detection	System
HSI0608	Oshima et al. (2016)	Acoustic absorption mapping: Wide-area estimation of acoustic absorption coefficient using airborne hyperspectral imagery	System
HSI0639	Shen et al. (2016)	Preliminary study of determination of Dinophysis concentration using hyperspectral imaging	System
HSI0657	Balasekaran et al. (2016)	Stray light suppression in InGaAs/GaAsSb type-II FPA	System

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0659	Hodgkin and Howell (2016)	HIL range performance of notional hyperspectral imaging sensors	System
HSI0681	Oklay et al. (2015)	Characterization of OSIRIS NAC filters for the interpretation of multispectral data of comet 67P/Churyumov-Gerasimenko	System
HSI0687	Lee et al. (2015a)	An introduction to the NASA Hyperspectral InfraRed Imager (HyspIRI) mission and preparatory activities	System
HSI0691	Lee et al. (2015b)	PHOTOSPHERIC ABUNDANCES of POLAR JETS on the SUN OBSERVED by HINODE	System
HSI0718	Zhang and Zheng (2015)	Hyperspectral imaging system for UAV	System
HSI0720	Lin et al. (2015)	An arrayed infrared filter based on liquid crystal Fabry-Perot effect for electrically tunable spectral imaging detection	System
HSI0742	Hosono et al. (2015)	Proposal of AAA-battery-size one-shot ATR Fourier spectroscopic imager for on-site analysis - Simultaneous measurement of multi-components with high accuracy -	System
HSI0755	Bundy et al. (2015)	Overview of the SDSS-IV MaNGA survey: Mapping Nearby Galaxies at Apache Point Observatory	System
HSI0763	Chanover et al. (2014)	AOTF-Based Spectral Imaging for Balloon-Borne Platforms	System
HSI0788	Wang et al. (2014a)	Overall design technology of hyperspectral imaging system based on AOTF	System
HSI0794	Storch et al. (2014)	ENMAP data product standards	System
HSI0801	Ruxton et al. (2014)	Hyperspectral imaging using novel LWIR OPO for hazardous material detection and identification	System
HSI0802	Liu et al. (2014c)	Sculpting narrowband Fano resonances inherent in the large-area mid-infrared photonic crystal microresonators for spectroscopic imaging	System
HSI0827	Fu et al. (2013c)	A tunable liquid crystal fabry-perot hyperspectral imaging device in mid-infrared wavelength range	System
HSI0846	Ruxton et al. (2013)	Hazardous material analysis using mid wave infrared hyperspectral imaging techniques	System
HSI0847	Fu et al. (2013a)	Tunable liquid crystal Fabry-Perot hyperspectral imaging detectors in mid-infrared	System
HSI0849	Jin et al. (2013)	Hyperspectral imager for farmland soil monitoring	System
HSI0868	Fu et al. (2013b)	An electrically controlled liquid crystal Fabry-Perot hyperspectral imaging chip in mid-infrared region	System
HSI0890	Zhao et al. (2012)	Analysis of the noise and signal-to-noise of AOTF imaging spectrometer based on EMCCD	System
HSI0900	Xu et al. (2012)	Calibration of imaging spectrometer based on acousto-optic tunable filter (AOTF)	System
HSI0911	Chakrabarti et al. (2012)	High-throughput and multislit imaging spectrograph for extended sources	System
HSI0914	Jiang et al. (2011)	Controlling system for smart hyper-spectral imaging array based on liquid-crystal Fabry-Perot device	System
HSI0918	Shen et al. (2011)	Research on LC-based spectral imaging system for visible band	System

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ID	Authors	Title	Exclusion reason
HSI0950	Edmond Turcu et al. (2010)	Ultrafast science and development at the Artemis facility	System
HSI0951	Ishihara et al. (2010)	Development of the hyperspectral cellular imaging system to apply to regenerative medicine	System
HSI0955	Nackaerts et al. (2010)	Evaluation of a lightweigth UAS-prototype for hyperspectral imaging	System
HSI0961	Liu et al. (2009)	A non-continuous wavelength scanning strategy for electrically tunable liquid-crystal hyperspectral imaging array	System
HSI0966	Lu et al. (2009)	Design of a continual zoom system with high speed for hyperspectral imagers	System
HSI0967	De Vries et al. (2009)	TROPOMI, the solar backscatter satellite instrument for air quality and climate, heads towards detailed design	System
HSI0972	Gupta (2009)	Biosensors technologies: acousto-optic tunable filter-based hyperspectral and polarization imagers for fluorescence and spectroscopic imaging.	System
HSI0976	Anchutkin et al. (2008)	Hyperspectral optical system with spatial separation of images possessing different polarization direction	System
HSI0978	Zhang et al. (2008)	Design of hyperspectral imaging system based on LCTF	System
HSI0981	Ye et al. (2008)	A ground-based hyperspectral imaging system for characterizing vegetation spectral features	System
HSI0986	Koh et al. (2008)	Fluorescence excitation spectroscopic imaging with a tunable light source and dimensionality reduction using FR-IsoMap	System
HSI0991	Sethuraman et al. (2007)	Spectroscopic intravascular photoacoustic imaging	System
HSI0992	Lo et al. (2007)	Wavelength calibration of hyperspectral sensors with 2-D detector arrays	System
HSI0994	Li et al. (2007)	New microscopic pushbroom hyperspectral imaging system for application in diabetic retinopathy research	System
HSI0999	Zuzak et al. (2007)	Characterization of a near-infrared laparoscopic hyperspectral imaging system for minimally invasive surgery	System
HSI1007	Garrigues et al. (2007)	An indium phosphide-based near infrared MOEMS microspectrometer for agri-food and environmental monitoring	System
HSI1016	Zavattini et al. (2006)	A hyperspectral fluorescence system for 3D in vivo optical imaging	System
HSI1019	Marke et al. (2005)	True 2D imaging spectroscopy in a reactive sputtter process for large scale optical glass coating	System
HSI1023	Bouhifd et al. (2005)	Fluorescence imaging spectroscopy utilising acousto-optic tuneable filters	System
HSI1027	Gupta (2005)	Compact hyperspectral and polarization imagers	System
HSI1028	Thomas (2004)	Elliptical varied line-space (EVLS) gratings	System
HSI1030	Silverglate et al. (2004)	Compact Reconnaissance Imaging Spectrometer for Mars (CRISM), characterization results for instrument and focal plane subsystems	System
HSI1031	Ü. et al. (2004)	Quantum dot detectors for mid-infrared sensing: Bias-controlled spectral tuning and matched filtering	System
HSI1034	Bei et al. (2004)	Inductively coupled plasma chemistry examinations with visible acousto-optic tunable filter hyperspectral imaging	System

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ID	Authors	Title	Exclusion reason
HSI1046	Murphy Jr. et al. (2001)	Age dating ultraluminous infrared galaxies along the merger sequence	System
HSI1048	Jean-Robert et al. (2000)	Range-gated intensified spectrographic imager: an instrument for active hyperspectral imaging	System
HSI1049	Mitsunori et al. (1999)	Infrared imaging spectrometry by the use of bundled chalcogenide glass fibers and a PtSi CCD camera	System
HSI1052	Bowers et al. (1998)	The on-orbit optical performance of the space telescope imaging spectrographa	System
HSI1055	Knecht et al. (1997)	The Arizona Airglow Experiment as flown on four space-shuttle missions	System
HSI1056	Goldstein et al. (1996)	The design and implementation of a high-fidelity Raman imaging microscope	System
HSI1057	Turner II John and Treado Patrick (1996)	Adaptive filtering and Hadamard transform imaging spectroscopy with an acousto-optic tunable filter (AOTF)	System
HSI1058	Linda et al. (1996)	Raman imaging microscopy: a novel chemical imaging technique	System
HSI1060	Sturgeon et al. (1994)	Spectral and polarimetric analysis of hyperspectral data collected by an acousto-optic tunable filter system	System
HSI1061	Tennyson et al. (1986)	TWO-DIMENSIONAL INTENSIFIED PHOTODIODE ARRAY FOR IMAGING SPECTROSCOPY.	System
HSI1062	Kessler (1986)	The infrared space observatory (ISO)	System
HSIX002	Kääriäinen and Dönsberg (2021)	Active hyperspectral imager using a tunable supercontinuum light source based on a MEMS Fabry − Perot interferometer	System
HSIX011	Fludra et al. (2021)	First observations from the SPICE EUV spectrometer on Solar Orbiter	System
HSIX020	Chu et al. (2021)	Research on edge enhancement of optical image based on acousto-optic filtering	System
HSIX030	Kääriäinen and Dönsberg (2022b)	Active hyperspectral imager based on a supercontinuum laser and a MEMS Fabry-Pérot interferometer	System
HSIX040	Riu et al. (2022)	Calibration and performances of the MicrOmega instrument for the characterization of asteroid Ryugu returned samples	System
HSIX045	Lee et al. (2022)	Compact meta-spectral image sensor for mobile applications	System
HSIX073	Liu et al. (2022c)	Flexible hyperspectral surface plasmon resonance microscopy	System
HSIX075	Raita-Hakola et al. (2022)	FPI Based Hyperspectral Imager for the Complex Surfaces—Calibration, Illumination and Applications	System
HSIX077	Yong et al. (2022)	High-Throughput Imaging and Spectral Analysis of Gold Nanoparticles Through Waveguide Excitation	System
HSIX078	Doh et al. (2022)	Hyperspectral application in bacterial rapid detection using optical scattering technology via integration of a supercontinuum laser	System
HSIX166	Papadakis et al. (2023)	XpeCAM: The Complete Solution for Artwork Documentation and Analysis	System
HSI0002	Nazir et al. (2022)	Hyperspectral imaging based kinetic approach to assess quality deterioration in fresh mushrooms (Agaricus bisporus) during postharvest storage	Wavelength selection

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ID	Authors	Title	Exclusion reason
HSI0095	Uddin et al. (2021)	PCA-based Feature Reduction for Hyperspectral Remote Sensing Image Classification	Wavelength selection
HSI0101	Parrag et al. (2020)	Application of hyperspectral imaging to detect toxigenic Fusarium infection on cornmeal	Wavelength selection
HSI0102	Song et al. (2020)	Spectral alteration zonation based on close range hyspex-320 m imaging spectroscopy: A case study in the gongchangling high-grade iron ore deposit, Liaoning Province, NE China	Wavelength selection
HSI0124	Huang et al. (2020d)	Measurement of early disease blueberries based on vis/nir hyperspectral imaging system	Wavelength selection
HSI0126	Ahmad et al. (2020)	Exploring local spatial features in hyperspectral images	Wavelength selection
HSI0135	Du et al. (2020)	Hyperspectral imaging and characterization of allergic contact dermatitis in the short-wave infrared	Wavelength selection
HSI0142	Fan et al. (2020)	Hyperspectral imaging features for mortar classification and compressive strength assessment	Wavelength selection
HSI0148	Ugarte Fajardo et al. (2020)	Early detection of black Sigatoka in banana leaves using hyperspectral images	Wavelength selection
HSI0160	Liu et al. (2020f)	Cooperative land use classification of hyperspectral and multispectral imagery based on dual branch convolutional neural network [基于双分支卷积网络的高光谱与多光谱图像协同土地利用分类]	Wavelength selection
HSI0165	Amanatiadis et al. (2020)	Infrared spectroscopic mapping imaging for depth analysis of artworks	Wavelength selection
HSI0202	Ktash et al. (2020)	Ultraviolet-visible/near infrared spectroscopy in this issue: Spectral preprpcessing TP cpmpensate fpr packaging film / using neural nets TP invert the prosail canppy mpdel and hyperspectral imaging to study the different types of raw cotton	Wavelength selection
HSI0204	Chen and He (2020)	Tea disease spot recognition based on image feature points extraction and matching	Wavelength selection
HSI0215	De Landro et al. (2020)	Hyperspectral image-based analysis of thermal damage in living liver undergoing laser ablation	Wavelength selection
HSI0222	Tsouvaltzis et al. (2020)	Early detection of eggplant fruit stored at chilling temperature using different non-destructive optical techniques and supervised classification algorithms	Wavelength selection
HSI0223	Li et al. (2020c)	Effect of synthetic amorphous silica powder on the cuticle of Tribolium castaneum and Sitophilus oryzae using hyperspectral imaging technique	Wavelength selection
HSI0243	Sun et al. (2019c)	Nondestructive Detection of Pork Tenderness Using Spatially Resolved Hyperspectral Imaging Technique Based on Multivariable Statistical Analysis [空间分辨散射光谱多参数信息融合方法的生鲜肉嫩度无损检测]	Wavelength selection
HSI0250	Putri and Saputro (2019)	Firmness prediction system of waxed malang apples using hyperspectral imaging	Wavelength selection
HSI0255	Zhang et al. (2019e)	Development of Fusarium head blight classification index using hyperspectral microscopy images of winter wheat spikelets	Wavelength selection
HSI0266	Ma et al. (2019c)	Three-dimensional grain angle measurement of softwood (Hinoki cypress) using near infrared spatially and spectrally resolved imaging (NIR-SSRI)	Wavelength selection

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ID	Authors	Title	Exclusion reason
HSI0279	Landro et al. (2019)	Hyperspectral imaging for thermal effect monitoring in in vivo liver during laser ablation	Wavelength selection
HSI0298	Honda et al. (2019)	Infrared polariscopy imaging of linear polymeric patterns with a focal plane array	Wavelength selection
HSI0308	Marzougui et al. (2019)	Advanced imaging for quantitative evaluation of aphanomyces root rot resistance in lentil	Wavelength selection
HSI0313	Laakso et al. (2019)	The long-wave infrared (8-12 m) spectral features of selected rare earth element—Bearing carbonate, phosphate and silicate minerals	Wavelength selection
HSI0317	Tian et al. (2019a)	Estimation of Sugar Beet Leaf Nitrogen Content Based on Spectral Parameters Optimized by Particle Swarm Optimization [基于粒子群算法优化光谱指数的甜菜叶片氮含量估测研究]	Wavelength selection
HSI0339	Ko et al. (2019)	Agriculture application with airborne hyperspectral images from two-dimensional concave grating system	Wavelength selection
HSI0345	Debnath et al. (2019)	Detection of Age and Defect of Grapevine Leaves Using Hyper Spectral Imaging	Wavelength selection
HSI0352	McCoy and Prum (2019)	Convergent evolution of super black plumage near bright color in 15 bird families	Wavelength selection
HSI0359	Bjorgan and Randeberg (2019)	A random forest-based method for selection of regions of interest in hyperspectral images of ex vivo human skin	Wavelength selection
HSI0384	Barbedo et al. (2018)	Detection of sprout damage in wheat kernels using NIR hyperspectral imaging	Wavelength selection
HSI0388	Sharma and Buddhiraju (2018)	A novel ant colony optimization based training subset selection algorithm for hyperspectral image classification	Wavelength selection
HSI0409	Acquarelli et al. (2018)	Spectral-spatial classification of hyperspectral images: Three tricks and a new learning setting	Wavelength selection
HSI0410	Idelchik et al. (2018)	Comparison of hyperspectral classification methods for the analysis of cerium oxide nanoparticles in histological and aqueous samples	Wavelength selection
HSI0411	Heikkinen (2018)	Spectral Reflectance Estimation Using Gaussian Processes and Combination Kernels	Wavelength selection
HSI0414	Morales-Sillero et al. (2018)	Quantification of protein in wheat using near infrared hyperspectral imaging: Performance comparison with conventional near infrared spectroscopy	Wavelength selection
HSI0417	Chen et al. (2018a)	Hyperspectral reflectance imaging for detecting typical defects of durum kernel surface	Wavelength selection
HSI0420	Asfour et al. (2018)	Optimization of wavelength selection for multispectral image acquisition: A case study of atrial ablation lesions	Wavelength selection
HSI0421	Serranti et al. (2018)	Production of an innovative biowaste-derived fertilizer: Rapid monitoring of physical-chemical parameters by hyperspectral imaging	Wavelength selection
HSI0428	Lv et al. (2018)	The research of spectral reconstruction for large aperture static imaging spectrometer	Wavelength selection
HSI0430	Xie et al. (2018)	Prediction of banana color and firmness using a novel wavelengths selection method of hyperspectral imaging	Wavelength selection

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0441	Zhang et al. (2018a)	From hyperspectral imaging to multispectral imaging: Portability and stability of HIS-MIS algorithms for common defect detection	Wavelength selection
HSI0444	Nila et al. (2018)	The prediction system of bruising depth of guava (psidium guajava L.) based on Vis-NIR imaging	Wavelength selection
HSI0464	Wang et al. (2018c)	Chlorophyll content detection of potato leaf based on hyperspectral image technology	Wavelength selection
HSI0473	Wang et al. (2018b)	On-Orbit Spectral Calibration Method of Grating Dispersive Imaging Spectrometer	Wavelength selection
HSI0490	Sugawara (2017)	Obliterated-writing decipherment using an infrared hyperspectral imaging system	Wavelength selection
HSI0503	Qi et al. (2017)	Predicting sandy soil moisture content with hyperspectral imaging	Wavelength selection
HSI0506	Velásquez et al. (2017)	An application based on the decision tree to classify the marbling of beef by hyperspectral imaging	Wavelength selection
HSI0510	Tian et al. (2017)	Quantified Estimation of Anthocyanin Content in Mosaic Virus Infected Apple Leaves Based on Hyperspectral Imaging	Wavelength selection
HSI0511	Yu et al. (2017)	Identification of Aphid Infection on Rape Pods Using Hyperspectral Imaging Combined with Image Processing	Wavelength selection
HSI0547	Ma et al. (2017a)	Rapid Identification of Apple Varieties Based on Hyperspectral Imaging	Wavelength selection
HSI0563	Chakraborty et al. (2017)	Mineral identification by band ratios and feature oriented principal component selection techniques in the Bhukia Region, Rajasthan	Wavelength selection
HSI0576	Xie et al. (2017b)	Detection of cold stressed maize seedlings for high throughput phenotyping using hyperspectral imagery	Wavelength selection
HSI0589	Yang et al. (2016)	Study on identification of immature corn seed using hyperspectral imaging	Wavelength selection
HSI0603	Nubiato et al. (2016)	Classifying of Nellore cattle beef on Normal and DFD applying a non conventional technique	Wavelength selection
HSI0614	Benoit et al. (2016)	On the value of the Kullback − Leibler divergence for cost-effective spectral imaging of plants by optimal selection of wavebands	Wavelength selection
HSI0618	Gao et al. (2016)	Non-destructive identification of kiwifruit with forchlorfenuron residue based on near infrared hyperspectral imaging technology	Wavelength selection
HSI0624	Zhao et al. (2016b)	Hyperspectral surface analysis for ripeness estimation and quick UV-C surface treatments for preservation of bananas	Wavelength selection
HSI0637	Candra and Abu-Bakar (2016)	Prediction of soluble solid content of starfruit using spectral imaging combined with partial least squares and support vector regression	Wavelength selection
HSI0650	Jiang et al. (2016)	Wavelength selection for detection of slight bruises on pears based on hyperspectral imaging	Wavelength selection
HSI0669	Cen et al. (2016)	Nondestructive detection of chilling injury in cucumber fruit using hyperspectral imaging with feature selection and supervised classification	Wavelength selection

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0698	Matsuda et al. (2015)	Determination of seed soundness in conifers cryptomeria japonica and chamaecyparis obtusa using narrow-multiband spectral imaging in the short-wavelength infrared range	Wavelength selection
HSI0713	Carvalho et al. (2015)	Laser-induced breakdown spectroscopy (LIBS) combined with hyperspectral imaging for the evaluation of printed circuit board composition	Wavelength selection
HSI0719	Ramirez et al. (2015)	Hyperspectral near infrared imaging applied to GSR	Wavelength selection
HSI0722	B. et al. (2015c)	A study on spectral analysis combining with image processing for lightness correction in spherical fruits by using hyperspectral imaging	Wavelength selection
HSI0739	Ewerlöf et al. (2015)	Estimating skin blood saturation by selecting a subset of hyperspectral imaging data	Wavelength selection
HSI0741	Chen et al. (2015)	Wavelength and model selection for hyperspectral imaging of tissue oxygen saturation	Wavelength selection
HSI0749	Schols et al. (2015)	Automated spectroscopic tissue classification in colorectal surgery	Wavelength selection
HSI0752	Goto et al. (2015)	Use of hyperspectral imaging technology to develop a diagnostic support system for gastric cancer	Wavelength selection
HSI0761	Wu et al. (2014b)	Chemical imaging and solid state analysis at compact surfaces using UV imaging	Wavelength selection
HSI0762	Yuan et al. (2014)	Detection of corn aflatoxin based on hyperspectral imaging technology and factor discriminant analysis	Wavelength selection
HSI0770	Guo et al. (2014)	Impact of region of interest selection for hyperspectral imaging and modeling of sugar content in apple	Wavelength selection
HSI0771	Shahzad et al. (2014)	Hyperspectral venous image quality assessment for optimum illumination range selection based on skin tone characteristics	Wavelength selection
HSI0774	Zhang et al. (2014b)	Automatic posture recognition of wheat kernels based on germ features	Wavelength selection
HSI0775	Zou et al. (2014)	Detection of chlorophyll content distribution in cucumber leaves based on hyperspectral imaging	Wavelength selection
HSI0776	Tian et al. (2014)	Feature vectors determination for pest detection on apples based on hyperspectral imaging	Wavelength selection
HSI0780	Wei et al. (2014b)	Identification of foreign fibers of seed cotton using hyperspectral images based on minimum noise fraction	Wavelength selection
HSI0784	Gaudi et al. (2014)	Hyperspectral imaging of melanocytic lesions	Wavelength selection
HSI0786	Parrag et al. (2014)	Early detection of cobweb disease infection on agaricus bisporus sporocarps using hyperspectral imaging	Wavelength selection
HSI0790	Mounier et al. (2014)	Hyperspectral imaging, spectrofluorimetry, FORS and XRF for the non-invasive study of medieval miniatures materials	Wavelength selection
HSI0799	Capobianco et al. (2014)	Pigment identification in pictorial layers by HyperSpectral Imaging	Wavelength selection
HSI0809	Sun et al. (2014c)	Nondestructive inspect of apple quality with hyperspectral imaging	Wavelength selection
HSI0836	Bulanon et al. (2013)	Citrus black spot detection using hyperspectral image analysis	Wavelength selection

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0839	Jia et al. (2013)	Study on method of maize hybrid purity identification based on hyperspectral image technology	Wavelength selection
HSI0840	Niphadkar et al. (2013)	Estimation of citrus canker lesion size using hyperspectral reflectance imaging	Wavelength selection
HSI0842	Zhang et al. (2013b)	Nondestructive detection of citrus defection using hyperspectra imaging technology	Wavelength selection
HSI0845	Yang et al. (2013)	The development of a line-scan imaging algorithm for the detection of fecal contamination on leafy greens	Wavelength selection
HSI0852	Denstedt et al. (2013)	Hyperspectral imaging as a diagnostic tool for chronic skin ulcers	Wavelength selection
HSI0854	Thorp et al. (2013)	Effect of image spatial and spectral characteristics on mapping semi-arid rangeland vegetation using multiple endmember spectral mixture analysis (MESMA)	Wavelength selection
HSI0864	Mahlein et al. (2013)	Development of spectral indices for detecting and identifying plant diseases	Wavelength selection
HSI0871	Cen et al. (2013)	Hyperspectral imaging-based classification and wavebands selection for internal defect detection of pickling cucumbers	Wavelength selection
HSI0873	Chen and Kuo (2013)	Measurement of degree of milling for rice using hyperspectral imaging	Wavelength selection
HSI0878	Huang et al. (2013b)	Effective wavelengths determination for detection of slight bruises on apples based on hyperspectral imaging	Wavelength selection
HSI0881	Ljungqvist et al. (2012)	Near-infrared hyper-spectral image analysis of astaxanthin concentration in fish feed coating	Wavelength selection
HSI0882	Masaitis and Mozgeris (2012)	Some peculiarities of laboratory measured hyperspectral reflectance characteristics of scots pine and Norway spruce needles	Wavelength selection
HSI0884	Ruxton et al. (2012a)	Mid-infrared hyperspectral imaging for the detection of explosive compounds	Wavelength selection
HSI0886	Wu et al. (2012c)	The diagnosis of components information distribution of wheat seedlings based on the hyperspectral imaging	Wavelength selection
HSI0895	Akbari et al. (2012)	Detection of cancer metastasis using a novel macroscopic hyperspectral method	Wavelength selection
HSI0905	Serranti et al. (2012b)	Dried fruits quality assessment by hyperspectral imaging	Wavelength selection
HSI0910	Shafri et al. (2012)	Detection of stressed oil palms from an airborne sensor using optimized spectral indices	Wavelength selection
HSI0915	Zhou et al. (2011)	Hyperspectral imaging technology for detection of moisture content of tomato leaves	Wavelength selection
HSI0917	Mendoza et al. (2011)	Integrated spectral and image analysis of hyperspectral scattering data for prediction of apple fruit firmness and soluble solids content	Wavelength selection
HSI0931	Peng et al. (2011)	Rapid detection of chlorophyll content in corn leaves by using least squares-support vector machines and hyperspectral images	Wavelength selection
HSI0932	Miao et al. (2011)	The detection of early-maturing pear's effective acidity based on hyperspectral imaging technology	Wavelength selection
HSI0935	Manley et al. (2011)	Tracking diffusion of conditioning water in single wheat kernels of different hardnesses by near infrared hyperspectral imaging	Wavelength selection

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI0941	Yoon et al. (2010)	Development of real-time line-scan hyperspectral imaging system for online agricultural and food product inspection	Wavelength selection
HSI0942	Delwiche et al. (2010)	Damage and quality assessment in wheat by NIR hyperspectral imaging	Wavelength selection
HSI0946	Guo et al. (2010)	Detection of foreign materials on the surface of ginned cotton by hyper-spectral imaging	Wavelength selection
HSI0948	Zhao et al. (2010)	Effect of fruit harvest time on citrus canker detection using hyperspectral reflectance imaging	Wavelength selection
HSI0952	Tian et al. (2010)	Diagnosis method of cucumber disease with hyperspectral imaging in greenhouse	Wavelength selection
HSI0956	Kobayashi et al. (2010)	Near infrared spectroscopy and hyperspectral imaging for prediction and visualisation of fat and fatty acid content in intact raw beef cuts	Wavelength selection
HSI0957	Mendoza et al. (2010)	Integration of hyperspectral scattering characteristics and image analysis techniques for improved prediction of apple fruit firmness and soluble solids content	Wavelength selection
HSI0962	Ariana and Lu (2009)	Wavebands selection for a hyperspectral reflectance and transmittance imaging system for quality evaluation of pickling cucumbers	Wavelength selection
HSI0968	Delwiche et al. (2009)	Hyperspectral imaging for detection of black tip damage in wheat kernels	Wavelength selection
HSI0969	Gowen et al. (2009)	Identification of mushrooms subjected to freeze damage using hyperspectral imaging	Wavelength selection
HSI0975	Naganathan et al. (2008b)	Visible/near-infrared hyperspectral imaging for beef tenderness prediction	Wavelength selection
HSI0977	Dogan et al. (2008)	Discrimination of isogenic wheat by InSb focal plane array chemical imaging	Wavelength selection
HSI0979	Naganathan et al. (2008a)	Partial least squares analysis of near-infrared hyperspectral images for beef tenderness prediction	Wavelength selection
HSI0980	Gowen et al. (2008)	Hyperspectral imaging for the investigation of quality deterioration in sliced mushrooms (Agaricus bisporus) during storage	Wavelength selection
HSI0984	Lee et al. (2008)	Correlation analysis of hyperspectral imagery for multispectral wavelength selection for detection of defects on apples	Wavelength selection
HSI0987	Gendrin et al. (2008)	Monitoring galenical process development by near infrared chemical imaging: One case study	Wavelength selection
HSI0990	Zhao et al. (2008)	Detecting subtle bruises on fruits with hyperspectral imaging	Wavelength selection
HSI0996	Heitschmidt et al. (2007)	Improved hyperspectral imaging system for fecal detection on poultry carcasses	Wavelength selection
HSI1005	Tumeh et al. (2007)	Differentiation of vascular and non-vascular skin spectral signatures using in vivo hyperspectral radiometric imaging: Implications for monitoring angiogenesis	Wavelength selection
HSI1006	Stormo et al. (2007)	Effects of single wavelength selection for anisakid roundworm larvae detection through multispectral imaging	Wavelength selection
HSI1008	Nakajima and Yoshikawa (2006)	Development of a device for detection of fruit rot in satsuma mandarins using imaging spectroscopy (Discrimination system for rot in satsuma mandarins using spectral imaging - Part 1)	Wavelength selection

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSI1009	Park et al. (2006)	Real-time multispectral imaging system for online poultry fecal inspection using UML	Wavelength selection
HSI1010	Bonifazi and Serranti (2006a)	Hyperspectral imaging based techniques in fluff characterization	Wavelength selection
HSI1013	Svensson et al. (2006)	An evaluation of 2D-wavelet filters for estimation of differences in textures of pharmaceutical tablets	Wavelength selection
HSI1015	Bonifazi and Serranti (2006b)	Imaging spectroscopy based strategies for ceramic glass contaminants removal in glass recycling	Wavelength selection
HSI1018	Wang and Ramos (2005)	Applying structural em in autonomous planetary exploration missions using hyperspectral image spectroscopy	Wavelength selection
HSI1020	Ariana et al. (2005)	Detection of mechanical injury on pickling cucumbers using near-infrared hyperspectral imaging	Wavelength selection
HSI1025	Tatzer et al. (2005)	Inline sorting with hyperspectral imaging in an industrial environment	Wavelength selection
HSI1026	Park et al. (2005)	Detection of cecal contaminants in visceral cavity of broiler carcasses using hyperspectral imaging	Wavelength selection
HSI1036	Park et al. (2004b)	Classification of hyperspectral imagery for identifying fecal and ingesta contaminants	Wavelength selection
HSI1040	Li et al. (2003)	Preliminary Study of Diagnostic Spectroscopic Imaging for Nasopharyngeal Carcinoma	Wavelength selection
HSI1041	Park et al. (2002b)	Hyperspectral imaging for food processing automation	Wavelength selection
HSI1050	Dwyer Peter and DiMarzio Charles (1999)	Hyperspectral imaging for dermal hemoglobin spectroscopy	Wavelength selection
HSI1051	Kokai et al. (1999)	Growth dynamics of carbon-metal particles and nanotubes synthesized by CO2 laser vaporization	Wavelength selection
HSI1054	Van Den Broek et al. (1997)	Optimal wavelength range selection by a genetic algorithm for discrimination purposes in spectroscopic infrared imaging	Wavelength selection
HSIX013	Chen et al. (2021a)	Hyperspectral imaging system based on fiber endoscope	Wavelength selection
HSIX015	Aref et al. (2021)	Imaging prospective study for commercial and in this issue: Spectral preprocessing to compensate for packaging film / using neural nets to invert the prosail canopy model low-cost hyperspectral imaging systems to evaluate thermal tissue effect on bovine liver samples	Wavelength selection
HSIX016	Cao et al. (2021)	Monitoring Index of Rice Bacterial Blight Based on Hyperspectral Fractal Dimension [基于光谱分形维数的水稻白叶枯病害监测指数研究]	Wavelength selection
HSIX017	Wang et al. (2021d)	Non-destructive detection of pork myoglobin content based on hyperspectral technology [基于高光谱技术的猪肉肌红蛋白含量无损检测]	Wavelength selection
HSIX018	Roccos et al. (2021)	Opto-thermally controlled beam steering in nonlinear all-dielectric metastructures	Wavelength selection
HSIX026	Kang et al. (2022)	A Method for Detection of Corn Kernel Mildew Based on Co-Clustering Algorithm with Hyperspectral Image Technology	Wavelength selection
HSIX039	Guimarães et al. (2022)	Assessing soil mineralogy and weathering degree by a multi-range sensor synergistic approach: From parent rock to topsoil	Wavelength selection

Table 1.2: Description of excluded studies

ID	Authors	Title	Exclusion reason
HSIX046	Agilandeeswari et al. (2022)	Crop Classification for Agricultural Applications in Hyperspectral Remote Sensing Images	Wavelength selection
HSIX064	Yipeng et al. (2022)	Determination of wheat kernels damaged by Fusarium head blight using monochromatic images of effective wavelengths from hyperspectral imaging coupled with an architecture self-search deep network	Wavelength selection
HSIX065	Unger et al. (2022)	Developing an affordable hyperspectral imaging system for rapid identification of Escherichia coli O157:H7 and Listeria monocytogenes in dairy products	Wavelength selection
HSIX074	Wang et al. (2022a)	Fluorescence spectrometry based chromaticity mapping, characterization, and quantitative assessment of dental caries	Wavelength selection
HSIX079	Sommer et al. (2022)	Hyperspectral Imaging during Normothermic Machine Perfusion—A Functional Classification of Ex Vivo Kidneys Based on Convolutional Neural Networks	Wavelength selection
HSIX085	Abdulridha et al. (2022)	Identification and Classification of Downy Mildew Severity Stages in Watermelon Utilizing Aerial and Ground Remote Sensing and Machine Learning	Wavelength selection
HSIX090	Zhang et al. (2022i)	Identification of True and Counterfeit Banknotes Based on Hyperspectral Imaging [高光谱成像的纸币真伪鉴别研究]	Wavelength selection
HSIX113	Wang et al. (2022e)	pH indicator-based sensor array in combination with hyperspectral imaging for intelligent evaluation of withering degree during processing of black tea	Wavelength selection
HSIX142	Bhattacharya et al. (2022)	Spectral Super-Resolution for Hyperspectral Image Reconstruction Using Dictionary and Machine Learning	Wavelength selection
HSIX154	Kyaw et al. (2022)	Using hyperspectral leaf reflectance to estimate photosynthetic capacity and nitrogen content across eastern cottonwood and hybrid poplar taxa	Wavelength selection

Table 1.2: Description of excluded studies

Chapter 2

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