Kenji tsujikawa

List of Publications by Year
in descending order

121	2,028	236833	360920
papers	citations	25 h-index	35 g-index

121	121	121	1803
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rapid identification and quantification of methamphetamine and amphetamine in hair by gas chromatography/mass spectrometry coupled with micropulverized extraction, aqueous acetylation and microextraction by packed sorbent. Journal of Chromatography A, 2009, 1216, 4063-4070.	1.8	87
2	Morphological and chemical analysis of magic mushrooms in Japan. Forensic Science International, 2003, 138, 85-90.	1.3	58
3	Chiral analysis of amphetamine-type stimulants using reversed-polarity capillary electrophoresis/positive ion electrospray ionization tandem mass spectrometry. Electrophoresis, 2003, 24, 1770-1776.	1.3	58
4	In vitrostability and metabolism of salvinorin A in rat plasma. Xenobiotica, 2009, 39, 391-398.	0.5	55
5	Degradation pathways of 4-methylmethcathinone in alkaline solution and stability of methcathinone analogs in various pH solutions. Forensic Science International, 2012, 220, 103-110.	1.3	53
6	A method for screening for various sedative-hypnotics in serum by liquid chromatography/single quadrupole mass spectrometry. Forensic Science International, 2006, 157, 57-70.	1.3	48
7	Methamphetamine impurity profiling using a 0.32 mm i.d. nonpolar capillary column. Forensic Science International, 2003, 135, 42-47.	1.3	44
8	Analysis of hallucinogenic constituents in Amanita mushrooms circulated in Japan. Forensic Science International, 2006, 164, 172-178.	1.3	42
9	Determination of muscimol and ibotenic acid in Amanita mushrooms by high-performance liquid chromatography and liquid chromatography-tandem mass spectrometry. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2007, 852, 430-435.	1.2	40
10	Forensic application of chiral separation of amphetamine-type stimulants to impurity analysis of seized methamphetamine by capillary electrophoresis. Forensic Science International, 2006, 161, 92-96.	1.3	39
11	The use of a sulfonated capillary on chiral capillary electrophoresis/mass spectrometry of amphetamine-type stimulants for methamphetamine impurity profiling. Forensic Science International, 2015, 249, 59-65.	1.3	39
12	Time-course measurements of caffeine and its metabolites extracted from fingertips after coffee intake: a preliminary study for the detection of drugs from fingerprints. Analytical and Bioanalytical Chemistry, 2013, 405, 3945-3952.	1.9	35
13	Thermal degradation of a new synthetic cannabinoid QUPIC during analysis by gas chromatographyâ€“mass spectrometry. Forensic Toxicology, 2014, 32, 201-207.	1.4	35
14	Comparison and classification of methamphetamine seized in Japan and Thailand using gas chromatography with liquidâ€“liquid extraction and solid-phase microextraction. Forensic Science International, 2008, 175, 85-92.	1.3	33
15	Three-step drug extraction from a single sub-millimeter segment of hair and nail to determine the exact day of drug intake. Analytica Chimica Acta, 2016, 948, 40-47.	2.6	33
16	Chemical profiling of seized methamphetamine putatively synthesized from phenylacetic acid derivatives. Forensic Science International, 2013, 227, 42-44.	1.3	32
17	Differentiation of regioisomeric fluoroamphetamine analogs by gas chromatographyâ€“mass spectrometry and liquid chromatographyâ€“tandem mass spectrometry. Forensic Toxicology, 2013, 31, 241-250.	1.4	32
18	Identification of impurities and the statistical classification of methamphetamine using headspace solid phase microextraction and gas chromatographyâ€“mass spectrometry. Forensic Science International, 2006, 160, 44-52.	1.3	29

#	Article	IF	Citations
19	Simple and simultaneous detection of methamphetamine and dimethyl sulfone in crystalline methamphetamine seizures by fast gas chromatography. Forensic Toxicology, 2008, 26, 19-22.	1.4	29
20	Micro-segmental hair analysis for proving drug-facilitated crimes: Evidence that a victim ingested a sleeping aid, diphenhydramine, on a specific day. Forensic Science International, 2018, 288, 23-28.	1.3	29
21	Metabolism of Fentanyl and Acetylfentanyl in Human-Induced Pluripotent Stem Cell-Derived Hepatocytes. Biological and Pharmaceutical Bulletin, 2018, 41, 106-114.	0.6	29
22	Application of a portable near infrared spectrometer for presumptive identification of psychoactive drugs. Forensic Science International, 2014, 242, 162-171.	1.3	28
23	Rapid, simple, and highly sensitive analysis of drugs in biological samples using thin-layer chromatography coupled with matrix-assisted laser desorption/ionization mass spectrometry. Analytical and Bioanalytical Chemistry, 2012, 402, 1257-1267.	1.9	27
24	Excretory Profile of 4-Bromo-2,5-dimethoxyphenethylamine (2C-B) in Rat.. Journal of Health Science, 2003, 49, 166-169.	0.9	25
25	Determination of salvinorin A and salvinorin B in Salvia divinorum-related products circulated in Japan. Forensic Science International, 2008, 180, 105-109.	1.3	25
26	Uptake of 3,4-methylenedioxymethamphetamine and its related compounds by a proton-coupled transport system in Caco-2 cells. Biochimica Et Biophysica Acta - Biomembranes, 2008, 1778, 42-50.	1.4	25
27	Profiling of seized methamphetamine putatively synthesized by reductive amination of 1-phenyl-2-propanone. Forensic Toxicology, 2012, 30, 70-75.	1.4	25
28	Thermal degradation of Î±-pyrrolidinopentiophenone during injection in gas chromatography/mass spectrometry. Forensic Science International, 2013, 231, 296-299.	1.3	25
29	Effectiveness of saliva and fingerprints as alternative specimens to urine and blood in forensic drug testing. Drug Testing and Analysis, 2016, 8, 644-651.	1.6	25
30	Timeâ€course measurements of drug concentrations in hair and toenails after single administrations of pharmaceutical products. Drug Testing and Analysis, 2017, 9, 571-577.	1.6	25
31	Use of hepatocytes isolated from a liver-humanized mouse for studies on the metabolism of drugs: application to the metabolism of fentanyl and acetylfentanyl. Forensic Toxicology, 2018, 36, 467-475.	1.4	25
32	Potentiation of domperidone-induced catalepsy by a P-glycoprotein inhibitor, cyclosporin A. Biopharmaceutics and Drug Disposition, 2003, 24, 105-114.	1.1	24
33	Rapid detection of hypnotics using surface-enhanced Raman scattering based on gold nanoparticle co-aggregation in a wet system. Analyst, The, 2019, 144, 2158-2165.	1.7	23
34	Micro-pulverized extraction pretreatment for highly sensitive analysis of 11-nor-9-carboxy-Î”⁹-tetrahydrocannabinol in hair by liquid chromatography/tandem mass spectrometry. Rapid Communications in Mass Spectrometry, 2015, 29, 2158-2166.	0.7	22
35	Enantioseparation of methamphetamine by supercritical fluid chromatography with cellulose-based packed column. Forensic Science International, 2017, 273, 39-44.	1.3	22
36	Strong evidence of drug-facilitated crimes by hair analysis using LCâ€“MS/MS after micro-segmentation. Forensic Toxicology, 2019, 37, 480-487.	1.4	22

#	Article	IF	Citations
37	Detection of main metabolites of XLRâ€11 and its thermal degradation product in human hepatoma HepaRG cells and human urine. Drug Testing and Analysis, 2015, 7, 341-345.	1.6	21
38	Analysis of amphetamine-type stimulants and their metabolites in plasma, urine and bile by liquid chromatography with a strong cation-exchange column-tandem mass spectrometry. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2008, 867, 78-83.	1.2	20
39	Development of an on-site screening system for amphetamine-type stimulant tablets with a portable attenuated total reflection Fourier transform infrared spectrometer. Analytica Chimica Acta, 2008, 608, 95-103.	2.6	20
40	Distribution measurements of 3,4-methylenedioxymethamphetamine and its metabolites in organs by matrix-assisted laser desorption/ionization imaging mass spectrometry using an automatic matrix spraying system with an air brush and a turntable. Analytical and Bioanalytical Chemistry, 2012, 404, 1823-1830.	1.9	20
41	Evaluation method for linking methamphetamine seizures using stable carbon and nitrogen isotopic compositions: a complementary study with impurity profiling. Rapid Communications in Mass Spectrometry, 2008, 22, 3816-3822.	0.7	19
42	Approaching over 10Â000â€fold sensitivity increase in chiral capillary electrophoresis: Cationâ€selective exhaustive injection and sweeping cyclodextrinâ€modified micellar electrokinetic chromatography. Electrophoresis, 2016, 37, 2970-2976.	1.3	19
43	Characterization and Differentiation of Geometric Isomers of 3â€methylfentanyl Analogs by Gas Chromatography/Mass Spectrometry, Liquid Chromatography/Mass Spectrometry, and Nuclear Magnetic Resonance Spectroscopy. Journal of Forensic Sciences, 2017, 62, 1472-1478.	0.9	19
44	Different localizations of drugs simultaneously administered in a strand of hair by microâ€segmental analysis. Drug Testing and Analysis, 2018, 10, 750-760.	1.6	19
45	In Vivo Metabolism of 5-Methoxy-N,N-diisopropyltryptamine in Rat. Journal of Health Science, 2006, 52, 425-430.	0.9	18
46	Applicability of chemically modified capillaries in chiral capillary electrophoresis for methamphetamine profiling. Forensic Science International, 2013, 226, 235-239.	1.3	18
47	Analysis of 4â€Bromoâ€2,5â€Dimethoxyphenethylamine<scp>A</scp>buser's Urine: Identification and Quantitation of Urinary Metabolites. Journal of Forensic Sciences, 2013, 58, 279-287.	0.9	18
48	Time-course measurements of drugs and metabolites transferred from fingertips after drug administration: usefulness of fingerprints for drug testing. Forensic Toxicology, 2014, 32, 235-242.	1.4	18
49	Differentiation of regioisomeric chloroamphetamine analogs using gas chromatographyâ€“chemical ionization-tandem mass spectrometry. Forensic Toxicology, 2015, 33, 338-347.	1.4	18
50	Identification and differentiation of methcathinone analogs by gas chromatographyâ€mass spectrometry. Drug Testing and Analysis, 2013, 5, 670-677.	1.6	17
51	Metabolism of Butyrylfentanyl in Fresh Human Hepatocytes: Chemical Synthesis of Authentic Metabolite Standards for Definitive Identification. Biological and Pharmaceutical Bulletin, 2019, 42, 623-630.	0.6	17
52	Protease-Sensitive Urinary Pheromones Induce Region-Specific Fos-Expression in Rat Accessory Olfactory Bulb. Biochemical and Biophysical Research Communications, 1999, 260, 222-224.	1.0	16
53	Development of a new field-test procedure for cocaine. Forensic Science International, 2017, 270, 267-274.	1.3	16
54	Accurate Estimation of Drug Intake Day by Microsegmental Analysis of a Strand of Hair by Use of Internal Temporal Markers. journal of applied laboratory medicine, The, 2018, 3, 37-47.	0.6	16

#	Article	IF	Citations
55	Development of simple and accurate detection systems for Cannabis sativa using DNA chromatography. Forensic Science International, 2018, 291, 68-75.	1.3	16
56	A Fatal Case of Suspected Anaphylaxis with Cefoperazone and Sulbactam: LCâ€MS Analysis. Journal of Forensic Sciences, 2008, 53, 226-231.	0.9	15
57	Thermal desorption counterâ€flow introduction atmospheric pressure chemical ionization for direct mass spectrometry of ecstasy tablets. Journal of Mass Spectrometry, 2009, 44, 1300-1307.	0.7	14
58	Recreational drugs, 3,4-Methylenedioxymethamphetamine(MDMA), 3,4-methylenedioxyamphetamine (MDA) and diphenylprolinol, inhibit neurite outgrowth in PC12 cells. Journal of Toxicological Sciences, 2010, 35, 375-381.	0.7	14
59	Differentiation of ringâ€substituted regioisomers of amphetamine and methamphetamine by supercritical fluid chromatography. Drug Testing and Analysis, 2017, 9, 389-398.	1.6	14
60	Simultaneous chiral impurity analysis of methamphetamine and its precursors by supercritical fluid chromatographyâ€“tandem mass spectrometry. Forensic Toxicology, 2019, 37, 145-153.	1.4	14
61	In vivometabolism of 2,5-dimethoxy-4-propylthiophenethylamine in rat. Xenobiotica, 2007, 37, 679-692.	0.5	13
62	Urinary Excretion Profiles of Two Major Triazolam Metabolites Î±-Hydroxytriazolam and 4-Hydroxytnazolam. Journal of Analytical Toxicology, 2005, 29, 240-243.	1.7	12
63	Interactions between 3,4-methylenedioxymethamphetamine, methamphetamine, ketamine, and caffeine in human intestinal Caco-2 cells and in oral administration to rats. Forensic Science International, 2007, 170, 183-188.	1.3	12
64	Seized methamphetamine samples with unique profiles of stable nitrogen isotopic composition documented by stable isotope ratio mass spectrometry. Forensic Toxicology, 2010, 28, 119-123.	1.4	12
65	Development of a novel immunoassay for herbal cannabis using a new fluorescent antibody probe, â€œUltra Quenchbodyâ€• Forensic Science International, 2016, 266, 541-548.	1.3	12
66	Rapid detection of synthetic cannabinoids in herbal highs using surface-enhanced Raman scattering produced by gold nanoparticle co-aggregation in a wet system. Analyst, The, 2019, 144, 6928-6935.	1.7	12
67	Estimation of day of death using micro-segmental hair analysis based on drug use history: a case of lidocaine use as a marker. International Journal of Legal Medicine, 2019, 133, 117-122.	1.2	12
68	Micro-segmental hair analysis: detailed procedures and applications in forensic toxicology. Forensic Toxicology, 2022, 40, 215-233.	1.4	12
69	Contribution of thermal desorption and liquidâ€“liquid extraction for identification and profiling of impurities in methamphetamine by gas chromatographyâ€“mass spectrometry. Forensic Science International, 2007, 171, 9-15.	1.3	11
70	Interaction of 3,4â€Methylenedioxymethamphetamine and Methamphetamine During Metabolism by In Vitro Human Metabolic Enzymes and in Rats*. Journal of Forensic Sciences, 2012, 57, 1008-1013.	0.9	11
71	Development of a Library Searchâ€Based Screening System for 3,4â€Methylenedioxymethamphetamine in Ecstasy Tablets Using a Portable Nearâ€Infrared Spectrometer. Journal of Forensic Sciences, 2016, 61, 1208-1214.	0.9	11
72	Differentiation of ring-substituted bromoamphetamine analogs by gas chromatographyâ€“tandem mass spectrometry. Forensic Toxicology, 2016, 34, 125-132.	1.4	10

#	Article	IF	Citations
73	Analysis of Benzylpiperazine-like Compounds. Japanese Journal of Science and Technology for Identification, 2004, 9, 165-184.	0.2	9
74	Measurement of three-dimensional distributions of drugs in nails using liquid chromatography/tandem mass spectrometry after micro-segmentation to elucidate drug uptake routes. Analytica Chimica Acta, 2020, 1108, 89-97.	2.6	9
75	In vivometabolism ofÎ±-methyltryptamine in rats: Identification of urinary metabolites. Xenobiotica, 2008, 38, 1476-1486.	0.5	8
76	Synthesis and Identification of Urinary Metabolites of 4-Iodo-2,5-dimethoxyphenethylamine. Journal of Forensic Sciences, 2011, 56, 1319-1323.	0.9	8
77	Distribution measurement of amphetamineâ€type stimulants in organs using micropulverized extraction and liquid chromatography/tandem mass spectrometry to complement drug distribution using mass spectrometry imaging. Rapid Communications in Mass Spectrometry, 2011, 25, 2397-2406.	0.7	8
78	Phosgene in deteriorated chloroform: presumptive cause of production of 3,4-dimethyl-5-phenyl-2-oxazolidones in methamphetamine. Forensic Toxicology, 2020, 38, 475-480.	1.4	8
79	Studies on the phase I metabolites of the new designer drug 1-(2,3-dihydro-1H-inden-5-yl)-2-(pyrrolidine-1-yl)butan-1-one (5-PPDI) in human urine. Forensic Science International, 2020, 310, 110214.	1.3	8
80	Stereoselective analysis of ephedrine and its stereoisomers as impurities and/or by-products in seized methamphetamine by supercritical fluid chromatography/tandem mass spectrometry. Forensic Science International, 2021, 318, 110591.	1.3	8
81	Development of an improved method to estimate the days of continuous drug ingestion, based on the microâ€segmental hair analysis. Drug Testing and Analysis, 2021, 13, 1295-1304.	1.6	8
82	Thermal decomposition of CBD to Î”9-THC during GC-MS analysis: A potential cause of Î”9-THC misidentification. Forensic Science International, 2022, 337, 111366.	1.3	8
83	Determination of 4-Hydroxy-3-methoxymethamphetamine as a Metabolite of Methamphetamine in Rats and Human Liver Microsomes Using Gas Chromatography-Mass Spectrometry and Liquid Chromatography-Tandem Mass Spectrometry. Journal of Analytical Toxicology, 2009, 33, 266-271.	1.7	7
84	Degradation of N-hydroxy-3,4-methylenedioxymethamphetamine in aqueous solution and its prevention. Forensic Science International, 2009, 193, 106-111.	1.3	7
85	Simultaneous determination of tryptamine analogues in designer drugs using gas chromatographyâ€“mass spectrometry and liquid chromatographyâ€“tandem mass spectrometry. Forensic Toxicology, 2014, 32, 154-161.	1.4	7
86	Utilization of matrix-assisted laser desorption/ionization imaging mass spectrometry to search for cannabis in herb mixtures. Analytical and Bioanalytical Chemistry, 2014, 406, 4789-4794.	1.9	7
87	Highly sensitive quantification of unconjugated 11-nor-9-carboxy-Î”9-tetrahydrocannabinol in a cannabis user's hair using micropulverized extraction. Forensic Science International, 2016, 262, e34-e36.	1.3	7
88	Metabolism of a new synthetic opioid tetrahydrofuranylfentanyl in fresh isolated human hepatocytes: Detection and confirmation of ringâ€opened metabolites. Drug Testing and Analysis, 2020, 12, 439-448.	1.6	7
89	Development of the â€œselective concentrationâ€•analytical method for drug-containing hair regions based on micro-segmental analysis to identify a trace amount of drug in hair: hair analysis following single-dose ingestion of midazolam. Forensic Toxicology, 2021, 39, 156-166.	1.4	7
90	Rapid identification of drug-type and fiber-type cannabis by allele specific duplex PCR. Forensic Science International, 2021, 318, 110634.	1.3	6

#	Article	IF	Citations
91	Distribution profiles of diphenhydramine and lidocaine in scalp, axillary, and pubic hairs measured by micro-segmental hair analysis: good indicator for discrimination between administration and external contamination of the drugs. Forensic Toxicology, 2022, 40, 64-74.	1.4	6
92	Thin-layer chromatography on silver nitrate-impregnated silica gel for analysis of homemade tetrahydrocannabinol mixtures. Forensic Toxicology, 2022, 40, 125-131.	1.4	6
93	Differentiation of regioisomeric methylamphetamines by GC/MS. Japanese Journal of Forensic Science and Technology, 2014, 19, 111-119.	0.1	5
94	Comments on â€œCharacterization of four new designer drugs, 5-chloro-NNEI, NNEI indazole analog, Î±-PHPP and Î±-POP, with 11 newly distributed designer drugs in illegal productsâ€• Forensic Science International, 2015, 251, e15-e17.	1.3	5
95	Instability of the hydrochloride salts of cathinone derivatives in air. Forensic Science International, 2015, 248, 48-54.	1.3	5
96	Development of rapid and simple method for DNA extraction from cannabis resin based on the evaluation of relative PCR amplification ability. Forensic Science International, 2018, 287, 176-182.	1.3	5
97	Evaluation of Agonistic Activity of Fluorinated and Nonfluorinated Fentanyl Analogs on Î¼-Opioid Receptor Using a Cell-Based Assay System. Biological and Pharmaceutical Bulletin, 2021, 44, 159-161.	0.6	5
98	Agonistic activity of fentanyl analogs and their metabolites on opioid receptors. Forensic Toxicology, 2022, 40, 156-162.	1.4	5
99	Detection and confirmation of the ring-opened carboxylic acid metabolite of a new synthetic opioid furanylfentanyl. Forensic Toxicology, 2021, 39, 114-122.	1.4	4
100	Analysis of potential phenylacetone precursors (ethyl 3â€•oxoâ€•2â€•phenylbutyrate, methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 T their conversion to phenylacetone. Drug Testing and Analysis, 2021, , .	1.6	4
101	Title is missing!. Japanese Journal of Science and Technology for Identification, 2004, 9, 71-78.	0.2	4
102	Optimized Conditions for the Enzymatic Hydrolysis of .ALPHA.-Hydroxytriazolam-Glucuronide in Human Urine. Journal of Health Science, 2004, 50, 286-289.	0.9	3
103	Increase in split ratio enables detection of underivatized N-hydroxy-3,4-methylenedioxymethamphetamine and N-hydroxy-3,4-methylenedioxyamphetamine by capillary GC-MS. Forensic Toxicology, 2010, 28, 55-57.	1.4	3
104	A model system for prediction of the in vivo metabolism of designer drugs using three-dimensional culture of rat and human hepatocytes. Forensic Toxicology, 2011, 29, 142-151.	1.4	3
105	Rapid Chemical Examinations of Cannabis and Its Related Herbal Products. Japanese Journal of Forensic Science and Technology, 2013, 18, 143-153.	0.1	3
106	Profiling of Methamphetamine. Bunseki Kagaku, 2014, 63, 221-231.	0.1	3
107	Synthesis and Analysis of Glucuronic Acidâ€Conjugated Metabolites of 4â€Bromoâ€2,5â€Dimethoxyphenethylamine. Journal of Forensic Sciences, 2017, 62, 488-492.	0.9	3
108	DNA testing of suspected cannabis samples with exceptional morphology using a simple detection kit. Forensic Toxicology, 2021, 39, 266-274.	1.4	3

#	Article	IF	Citations
109	Degradation of 1-phenyl-2-propanone during long-term storage: useful information for methamphetamine impurity profiling. Forensic Toxicology, 2021, 39, 405-416.	1.4	3
110	Formation of Oxazolidine Derivatives by Reaction with Ephedrines and Aldehyde Impurities in Ethyl Acetate. Journal of Chromatographic Science, 2022, 60, 316-323.	0.7	3
111	Differentiation of ringâ€substituted regioisomers of cathinone analogs by supercritical fluid chromatography. Analytical Science Advances, 2020, 1, 22.	1.2	2
112	Effects of the Various Preparation Procedures of Dragendorff Reagent on Sensitivity for Thin Layer Chromatography. Japanese Journal of Forensic Science and Technology, 2005, 10, 127-133.	0.1	1
113	Urinary Excretion Profiles of 2,5-Dimethoxy-4-alkylthiophenethylamine Analogs in Rats. Biological and Pharmaceutical Bulletin, 2016, 39, 883-886.	0.6	1
114	Evaluation of drug identification and discrimination ability of portable spectrometers. Japanese Journal of Forensic Science and Technology, 2017, 22, 9-24.	0.1	1
115	Development and demonstration of cannabis DNA detection kit using DNA chromatography chip. Japanese Journal of Forensic Science and Technology, 2021, 26, 29-48.	0.1	1
116	Identification of the metabolites of 2,5-dimethoxy-4-ethylthiophenethylamine (2C-T-2) and 2,5-dimethoxy-4-isopropylthiophenethylamine (2C-T-4) in rat urine. Japanese Journal of Forensic Science and Technology, 2014, 19, 91-101.	0.1	1
117	Urinary excretion profiles ofN-hydroxy-3,4-methylenedioxymethamphetamine in rats. Xenobiotica, 2011, 41, 578-584.	0.5	0
118	Comparison and evaluation of the quick purification methods of methamphetamine hydrochloride from dimethyl sulfone for spectroscopic identification. Forensic Science International, 2018, 282, 86-91.	1.3	0
119	Chiral Capillary Electrophoresis of Amphetamine-Type Stimulants. Denki Eido, 2015, 59, 64-66.	0.0	0
120	Expediting cannabis seed examination by combining color reaction and DNA testing. Japanese Journal of Forensic Science and Technology, 2021, , .	0.1	0
121	Evaluation of a cannabis seed examination method without cultivation process. Japanese Journal of Forensic Science and Technology, 2022, , .	0.1	0