Mei-Chuan Ko

List of Publications by Year
in descending order

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122 papers	4,302 citations	76326 40 h-index	133252 59 g-index
128 all docs	128 docs citations	128 times ranked	2647 citing authors

#	Article	IF	Citations
1	Most Efficient Cocaine Hydrolase Designed by Virtual Screening of Transition States. Journal of the American Chemical Society, 2008, 130, 12148-12155.	13.7	164
2	The Role of Central Î¼ Opioid Receptors in Opioid-Induced Itch in Primates. Journal of Pharmacology and Experimental Therapeutics, 2004, 310, 169-176.	2.5	132
3	Functional plasticity of the <scp>N</scp>/<scp>OFQâ€NOP</scp> receptor system determines analgesic properties of <scp>NOP</scp> receptor agonists. British Journal of Pharmacology, 2014, 171, 3777-3800.	5.4	109
4	STING controls nociception via type I interferon signalling in sensory neurons. Nature, 2021, 591, 275-280.	27.8	107
5	Activation of Î¹-Opioid Receptors Inhibits Pruritus Evoked by Subcutaneous or Intrathecal Administration of Morphine in Monkeys. Journal of Pharmacology and Experimental Therapeutics, 2003, 305, 173-179.	2.5	106
6	An Experimental Itch Model in Monkeys. Anesthesiology, 2000, 92, 795-805.	2.5	104
7	Relative Reinforcing Effects of Three Opioids with Different Durations of Action. Journal of Pharmacology and Experimental Therapeutics, 2002, 301, 698-704.	2.5	101
8	A bifunctional nociceptin and mu opioid receptor agonist is analgesic without opioid side effects in nonhuman primates. Science Translational Medicine, 2018, 10, .	12.4	100
9	IL-23/IL-17A/TRPV1 axis produces mechanical pain via macrophage-sensory neuron crosstalk in female mice. Neuron, 2021, 109, 2691-2706.e5.	8.1	93
10	Roles of Î¼-Opioid Receptors and Nociceptin/Orphanin FQ Peptide Receptors in Buprenorphine-Induced Physiological Responses in Primates. Journal of Pharmacology and Experimental Therapeutics, 2012, 343, 72-81.	2.5	91
11	Behavioral Effects of a Synthetic Agonist Selective for Nociceptin/Orphanin FQ Peptide Receptors in Monkeys. Neuropsychopharmacology, 2009, 34, 2088-2096.	5.4	87
12	A novel orvinol analog, BU08028, as a safe opioid analgesic without abuse liability in primates. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5511-8.	7.1	87
13	Effects of Atypical Î¹-Opioid Receptor Agonists on Intrathecal Morphine-Induced Itch and Analgesia in Primates. Journal of Pharmacology and Experimental Therapeutics, 2009, 328, 193-200.	2.5	81
14	Thermostable Variants of Cocaine Esterase for Long-Time Protection against Cocaine Toxicity. Molecular Pharmacology, 2009, 75, 318-323.	2.3	81
15	Design, Preparation, and Characterization of High-Activity Mutants of Human Butyrylcholinesterase Specific for Detoxification of Cocaine. Molecular Pharmacology, 2011, 79, 290-297.	2.3	81
16	Central Î¹-opioid receptor-mediated antidepressant-like effects of nor-Binaltorphimine: Behavioral and BDNF mRNA expression studies. European Journal of Pharmacology, 2007, 570, 89-96.	3.5	80
17	Antinociceptive Effects of Nociceptin/Orphanin FQ Administered Intrathecally in Monkeys. Journal of Pain, 2009, 10, 509-516.	1.4	76
18	Long-lasting antinociceptive spinal effects in primates of the novel nociceptin/orphanin FQ receptor agonist UFP-112. Pain, 2010, 148, 107-113.	4.2	70

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19	Endogenous opioids upregulate brain-derived neurotrophic factor mRNA through Î´- and Âµ-opioid receptors independent of antidepressant-like effects. European Journal of Neuroscience, 2006, 23, 984-994.	2.6	69
20	Periostin Activation of Integrin Receptors on Sensory Neurons Induces Allergic Itch. Cell Reports, 2020, 31, 107472.	6.4	69
21	The Therapeutic Potential of Nociceptin/Orphanin FQ Receptor Agonists as Analgesics without Abuse Liability. ACS Chemical Neuroscience, 2013, 4, 214-224.	3.5	68
22	Effects of Intrathecally Administered Nociceptin/Orphanin FQ in Monkeys: Behavioral and Mass Spectrometric Studies. Journal of Pharmacology and Experimental Therapeutics, 2006, 318, 1257-1264.	2.5	66
23	Differentiation of kappa opioid agonist-induced antinociception by naltrexone apparent pA2 analysis in rhesus monkeys. Journal of Pharmacology and Experimental Therapeutics, 1998, 285, 518-26.	2.5	59
24	Electrospray sample deposition for matrix-assisted laser desorption/ionization(MALDI) and atmospheric pressure MALDI mass spectrometry with attomole detection limits. Rapid Communications in Mass Spectrometry, 2004, 18, 1193-1200.	1.5	57
25	Epithelia-Sensory Neuron Cross Talk Underlies Cholestatic Itch Induced by Lysophosphatidylcholine. Gastroenterology, 2021, 161, 301-317.e16.	1.3	57
26	Effects of Spinally Administered Bifunctional Nociceptin/Orphanin FQ Peptide Receptor/Î¼-Opioid Receptor Ligands in Mouse Models of Neuropathic and Inflammatory Pain. Journal of Pharmacology and Experimental Therapeutics, 2013, 346, 11-22.	2.5	56
27	Effects of Butorphanol on Morphine-induced Itch and Analgesia in Primates. Anesthesiology, 2007, 107, 478-485.	2.5	56
28	How best to fight that nasty itch - from new insights into the neuroimmunological, neuroendocrine, and neurophysiological bases of pruritus to novel therapeutic approaches. Experimental Dermatology, 2005, 14, 225-225.	2.9	55
29	Antiâ€“PD-1 treatment impairs opioid antinociception in rodents and nonhuman primates. Science Translational Medicine, 2020, 12, .	12.4	54
30	Physiological Function of Gastrin-Releasing Peptide and Neuromedin B Receptors in Regulating Itch Scratching Behavior in the Spinal Cord of Mice. PLoS ONE, 2013, 8, e67422.	2.5	53
31	Local administration of Î” 9 -tetrahydrocannabinol attenuates capsaicin-induced thermal nociception in rhesus monkeys: a peripheral cannabinoid action. Psychopharmacology, 1999, 143, 322-326.	3.1	51
32	Effects of mu, kappa, and delta opioid receptor agonists on the function of hypothalamicâ€“pituitaryâ€“adrenal axis in monkeys. Psychoneuroendocrinology, 2008, 33, 478-486.	2.7	51
33	Central N/OFQ-NOP Receptor System in Pain Modulation. Advances in Pharmacology, 2016, 75, 217-243.	2.0	50
34	Orphanin FQ inhibits capsaicin-induced thermal nociception in monkeys by activation of peripheral ORL1 receptors. British Journal of Pharmacology, 2002, 135, 943-950.	5.4	48
35	Supraspinal actions of nociceptin/orphanin <scp>FQ</scp>, morphine and substance <scp>P</scp> in regulating pain and itch in nonâ€human primates. British Journal of Pharmacology, 2015, 172, 3302-3312.	5.4	46
36	kappa-Opioid receptor binding populations in rhesus monkey brain: relationship to an assay of thermal antinociception. Journal of Pharmacology and Experimental Therapeutics, 1998, 285, 595-601.	2.5	46

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37	Structural analysis of thermostabilizing mutations of cocaine esterase. Protein Engineering, Design and Selection, 2010, 23, 537-547.	2.1	45
38	Characterization of the complex morphinan derivative BU72 as a high efficacy, long-lasting mu-opioid receptor agonist. European Journal of Pharmacology, 2004, 499, 107-116.	3.5	44
39	Antinociceptive, hypothermic, hypotensive, and reinforcing effects of a novel neurotensin receptor agonist, NT69L, in rhesus monkeys. Pharmacology Biochemistry and Behavior, 2005, 80, 341-349.	2.9	43
40	Differential in Vivo Potencies of Naltrexone and 6Î²-Naltrexol in the Monkey. Journal of Pharmacology and Experimental Therapeutics, 2006, 316, 772-779.	2.5	42
41	BU10038 as a safe opioid analgesic with fewer side-effects after systemic and intrathecal administration in primates. British Journal of Anaesthesia, 2019, 122, e146-e156.	3.4	42
42	Intracisternal nor-binaltorphimine distinguishes central and peripheral kappa-opioid antinociception in rhesus monkeys. Journal of Pharmacology and Experimental Therapeutics, 1999, 291, 1113-20.	2.5	42
43	Studies of Î¼-, Îº-, and Î´-Opioid Receptor Density and G Protein Activation in the Cortex and Thalamus of Monkeys. Journal of Pharmacology and Experimental Therapeutics, 2003, 306, 179-186.	2.5	41
44	Cocaine Esterase: Interactions with Cocaine and Immune Responses in Mice. Journal of Pharmacology and Experimental Therapeutics, 2007, 320, 926-933.	2.5	41
45	Cocaine Esterase Prevents Cocaine-Induced Toxicity and the Ongoing Intravenous Self-Administration of Cocaine in Rats. Journal of Pharmacology and Experimental Therapeutics, 2009, 331, 445-455.	2.5	41
46	The Role of Central Gastrin-Releasing Peptide and Neuromedin B Receptors in the Modulation of Scratching Behavior in Rats. Journal of Pharmacology and Experimental Therapeutics, 2011, 337, 822-829.	2.5	40
47	Distinct functions of opioid-related peptides and gastrin-releasing peptide in regulating itch and pain in the spinal cord of primates. Scientific Reports, 2015, 5, 11676.	3.3	40
48	Neuraxial Opioid-Induced Itch and Its Pharmacological Antagonism. Handbook of Experimental Pharmacology, 2015, 226, 315-335.	1.8	39
49	The role of peripheral mu opioid receptors in the modulation of capsaicin-induced thermal nociception in rhesus monkeys. Journal of Pharmacology and Experimental Therapeutics, 1998, 286, 150-6.	2.5	39
50	<scp>[Dmt¹]N/OFQ(1â€“13)â€NH₂</scp>: a potent nociceptin/orphanin <scp>FQ</scp> and opioid receptor universal agonist. British Journal of Pharmacology, 2013, 168, 151-162.	5.4	38
51	The effects of nociceptin/orphanin FQ receptor agonist Ro 64-6198 and diazepam on antinociception and remifentanil self-administration in rhesus monkeys. Psychopharmacology, 2011, 213, 53-60.	3.1	35
52	Differential effects of opioid-related ligands and NSAIDs in nonhuman primate models of acute and inflammatory pain. Psychopharmacology, 2014, 231, 1377-1387.	3.1	34
53	Therapeutic potentials of NOP and MOP receptor coactivation for the treatment of pain and opioid abuse. Journal of Neuroscience Research, 2022, 100, 191-202.	2.9	34
54	Effect of opioid receptor antagonists on hypothalamicâ€“pituitaryâ€“adrenal activity in rhesus monkeys. Psychoneuroendocrinology, 2003, 28, 513-528.	2.7	33

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55	Characterization of scratching responses in rats following centrally administered morphine or bombesin. Behavioural Pharmacology, 2003, 14, 501-508.	1.7	32
56	PEGylation of bacterial cocaine esterase for protection against protease digestion and immunogenicity. Journal of Controlled Release, 2010, 142, 174-179.	9.9	32
57	Spinal Functions of B-Type Natriuretic Peptide, Gastrin-Releasing Peptide, and Their Cognate Receptors for Regulating Itch in Mice. Journal of Pharmacology and Experimental Therapeutics, 2016, 356, 596-603.	2.5	32
58	GR89,696: a potent kappa-opioid agonist with subtype selectivity in rhesus monkeys. Journal of Pharmacology and Experimental Therapeutics, 2001, 298, 1049-59.	2.5	32
59	Activation of peripheral kappa opioid receptors inhibits capsaicin-induced thermal nociception in rhesus monkeys. Journal of Pharmacology and Experimental Therapeutics, 1999, 289, 378-85.	2.5	30
60	Seizure activity involved in the up-regulation of BDNF mRNA expression by activation of central Mu opioid receptors. Neuroscience, 2009, 161, 301-310.	2.3	29
61	Ultra-long antagonism of kappa opioid agonist-induced diuresis by intracisternal nor-binaltorphimine in monkeys. Brain Research, 2003, 982, 38-44.	2.2	28
62	Pharmacokinetic evidence for the long-lasting effect of nor-binaltorphimine, a potent kappa opioid receptor antagonist, in mice. Neuroscience Letters, 2013, 552, 98-102.	2.1	28
63	Effects of the NOP agonist SCH221510 on producing and attenuating reinforcing effects as measured by drug self-administration in rats. European Journal of Pharmacology, 2014, 745, 182-189.	3.5	28
64	Pharmacological, Pharmacokinetic, and Primate Analgesic Efficacy Profile of the Novel Bradykinin B1 Receptor Antagonist ELN441958. Journal of Pharmacology and Experimental Therapeutics, 2007, 322, 619-630.	2.5	27
65	GRP receptor and AMPA receptor cooperatively regulate itch-responsive neurons in the spinal dorsal horn. Neuropharmacology, 2020, 170, 108025.	4.1	27
66	Morphine acts on spinal dynorphin neurons to cause itch through disinhibition. Science Translational Medicine, 2021, 13, .	12.4	27
67	Nociceptin/Orphanin FQ Peptide Receptor-Related Ligands as Novel Analgesics. Current Topics in Medicinal Chemistry, 2020, 20, 2878-2888.	2.1	26
68	Spinal antinociceptive effects of the novel <scp>NOP</scp> receptor agonist <scp>PWT2</scp>â€nociceptin/orphanin <scp>FQ</scp> in mice and monkeys. British Journal of Pharmacology, 2015, 172, 3661-3670.	5.4	25
69	Antinociceptive, reinforcing, and pruritic effects of the G-protein signalling-biased mu opioid receptor agonist PZM21 in non-human primates. British Journal of Anaesthesia, 2020, 125, 596-604.	3.4	24
70	Pharmacological studies on the NOP and opioid receptor agonist PWT2-[Dmt1]N/OFQ(1-13). European Journal of Pharmacology, 2017, 794, 115-126.	3.5	23
71	Altered expression of glial markers, chemokines, and opioid receptors in the spinal cord of type 2 diabetic monkeys. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2017, 1863, 274-283.	3.8	23
72	Local inhibitory effects of dynorphin A-(1â€“17) on capsaicin-induced thermal allodynia in rhesus monkeys. European Journal of Pharmacology, 2000, 402, 69-76.	3.5	22

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73	Local administration of mu or kappa opioid agonists attenuates capsaicin-induced thermal hyperalgesia via peripheral opioid receptors in rats. Psychopharmacology, 2000, 148, 180-185.	3.1	21
74	Long-Lasting Effects of a PEGylated Mutant Cocaine Esterase (CocE) on the Reinforcing and Discriminative Stimulus Effects of Cocaine in Rats. Neuropsychopharmacology, 2012, 37, 1092-1103.	5.4	21
75	Comparison of the opioid receptor antagonist properties of naltrexone and 6Î²-naltrexol in morphine-naÃ¯ve and morphine-dependent mice. European Journal of Pharmacology, 2008, 583, 48-55.	3.5	20
76	The Spinal Antinociceptive Effects of Endomorphins in Rats: Behavioral and G Protein Functional Studies. Anesthesia and Analgesia, 2008, 106, 1873-1881.	2.2	19
77	Effects of cocaine esterase following its repeated administration with cocaine in mice. Drug and Alcohol Dependence, 2009, 101, 202-209.	3.2	19
78	Subunit Stabilization and Polyethylene Glycolation of Cocaine Esterase Improves In Vivo Residence Time. Molecular Pharmacology, 2011, 80, 1056-1065.	2.3	19
79	Amelioration of the Cardiovascular Effects of Cocaine in Rhesus Monkeys by a Long-Acting Mutant Form of Cocaine Esterase. Neuropsychopharmacology, 2011, 36, 1047-1059.	5.4	17
80	Effects of NOP-Related Ligands in Nonhuman Primates. Handbook of Experimental Pharmacology, 2019, 254, 323-343.	1.8	17
81	Diltiazem enhances the analgesic but not the respiratory depressant effects of morphine in rhesus monkeys. European Journal of Pharmacology, 2000, 397, 85-92.	3.5	15
82	Chronic effects of haloperidol and SCH23390 on operant and licking behaviors in the rat. Chinese Journal of Physiology, 1995, 38, 65-73.	1.0	15
83	Repeated Administration of a Mutant Cocaine Esterase: Effects on Plasma Cocaine Levels, Cocaine-Induced Cardiovascular Activity, and Immune Responses in Rhesus Monkeys. Journal of Pharmacology and Experimental Therapeutics, 2012, 342, 205-213.	2.5	14
84	Effects of a long-acting mutant bacterial cocaine esterase on acute cocaine toxicity in rats. Drug and Alcohol Dependence, 2011, 118, 158-165.	3.2	13
85	Effects of stimulation of mu opioid and nociceptin/orphanin FQ peptide (NOP) receptors on alcohol drinking in rhesus monkeys. Neuropsychopharmacology, 2019, 44, 1476-1484.	5.4	12
86	Functional Profile of Systemic and Intrathecal Cebranopadol in Nonhuman Primates. Anesthesiology, 2021, 135, 482-493.	2.5	12
87	TC-2559, an Î±4Î²2 nicotinic acetylcholine receptor agonist, suppresses the expression of CCL3 and IL-1Î² through STAT3 inhibition in cultured murine macrophages. Journal of Pharmacological Sciences, 2015, 128, 83-86.	2.5	11
88	The effects of the phyllolitorin analogue [desTrp3,Leu8]phyllolitorin on scratching induced by bombesin and related peptides in rats. Brain Research, 1999, 839, 194-198.	2.2	9
89	Translational value of non-human primates in opioid research. Experimental Neurology, 2021, 338, 113602.	4.1	9
90	The Fate of Bacterial Cocaine Esterase (CocE): An In Vivo Study of CocE-Mediated Cocaine Hydrolysis, CocE Pharmacokinetics, and CocE Elimination. Journal of Pharmacology and Experimental Therapeutics, 2012, 340, 83-95.	2.5	8

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91	Usefulness of the measurement of neurite outgrowth of primary sensory neurons to study cancer-related painful complications. Biochemical Pharmacology, 2021, 188, 114520.	4.4	7
92	Pharmacological Investigation of NOP-Related Ligands as Analgesics without Abuse Liability. ACS Symposium Series, 2013, , 393-416.	0.5	6
93	Chemogenetic activation of central gastrinâ€releasing peptideâ€expressing neurons elicits itchâ€related scratching behavior in male and female mice. Pharmacology Research and Perspectives, 2021, 9, e00790.	2.4	6
94	Neuromedin B Induces Acute Itch in Mice via the Activation of Peripheral Sensory Neurons. Acta Dermato-Venereologica, 2019, 99, 587-893.	1.3	5
95	Potential therapeutic targets for the treatment of opioid abuse and pain. Advances in Pharmacology, 2022, 93, 335-371.	2.0	5
96	Characterization of Early Alzheimerâ€™s Disease-Like Pathological Alterations in Non-Human Primates with Aging: A Pilot Study. Journal of Alzheimer's Disease, 2022, 88, 957-970.	2.6	5
97	Enhanced antidepressant-like effects of a delta opioid receptor agonist, SNC80, in rats under inflammatory pain. Pharmacology Biochemistry and Behavior, 2022, 214, 173341.	2.9	4
98	Viewpoint 2. Experimental Dermatology, 2005, 14, 227-229.	2.9	3
99	Synthesis of Enantiopure PZM21: A Biased Agonist of the Muâ€Opioid Receptor. European Journal of Organic Chemistry, 2018, 2018, 4006-4012.	2.4	3
100	Pleiotropic Effects of Kappa Opioid Receptor-Related Ligands in Non-human Primates. Handbook of Experimental Pharmacology, 2020, 271, 435-452.	1.8	3
101	Pharmacological characterization of NOP receptor agonists as abuseâ€free and constipationâ€free analgesics in monkeys. FASEB Journal, 2012, 26, .	0.5	3
102	Differential mRNA expression of neuroinflammatory modulators in the spinal cord and thalamus of type 2 diabetic monkeys. Journal of Diabetes, 2018, 10, 886-895.	1.8	2
103	Functional roles of neuromedin B and gastrin-releasing peptide in regulating itch and pain in the spinal cord of non-human primates. Biochemical Pharmacology, 2022, 198, 114972.	4.4	2
104	Differential Densities of Mu, Kappa, and Delta Opioid Receptors and Their Receptor-G Protein Interactions in the Thalamus and Spinal Cord of Monkeys. Anesthesiology, 2002, 96, A792.	2.5	1
105	Pharmacokinetic evidence for the longâ€lasting effects of norâ€binaltorphimine (norâ€BNI). FASEB Journal, 2012, 26, .	0.5	1
106	[Dmt1]N/OFQ(1â€13)â€NH2, a potent NOP/MOP receptor mixed agonist. FASEB Journal, 2012, 26, 836.1.	0.5	1
107	BU08028 Displays a Promising Therapeutic Profile as an Analgesic in Monkeys. FASEB Journal, 2015, 29, 616.2.	0.5	1
108	Functional roles of neuromedin B and gastrinâ€releasing peptide in regulating itch and pain in the spinal cord of primates. FASEB Journal, 2020, 34, 1-1.	0.5	1

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109	ANTAGONISM OF KAPPA OPIOID-INDUCED ANTINOCICEPTION BY PARTIAL OPIOID AGONISTS IN RHESUS MONKEYS. Behavioural Pharmacology, 1999, 10, S54.	1.7	0
110	Kappa Opioid Receptor-Mediated Anti-Pruritic Action in Intrathecal Morphine-Induced Scratching Responses in Monkeys. Anesthesiology, 2002, 96, A1054.	2.5	0
111	Effects of a novel kappa opioid receptor agonist, TRKâ€820, on intrathecal morphineâ€induced itch and analgesia in monkeys. FASEB Journal, 2008, 22, 712.4.	0.5	0
112	Characterizing the Acute Cardiovascular Toxicities of Cocaine in Freely Moving Rhesus Monkeys. FASEB Journal, 2009, 23, 589.6.	0.5	0
113	Dual-Process Mechanism. , 2010, , 442-442.		0
114	The central antidepressantâ€like and antinociceptive effects of a delta opioid receptor agonist SNC80 in rats. FASEB Journal, 2010, 24, 581.3.	0.5	0
115	Effects of intradermal administration of endogenous opioid peptides, Î²â€endorphin and dynorphinâ€A, on scratching behavior in mice. FASEB Journal, 2010, 24, .	0.5	0
116	Roles of MOP and NOP receptors in regulating buprenorphineâ€induced physiological responses in monkeys. FASEB Journal, 2012, 26, 1123.2.	0.5	0
117	Role of gastrinâ€releasing peptide and neuromedin B receptors in the neurotransmission of itch in the spinal cord of mice. FASEB Journal, 2013, 27, 1176.6.	0.5	0
118	Supraspinal Actions of N/OFQ, Morphine and Substance P in Regulating Pain and Itch in Nonhuman Primates. FASEB Journal, 2015, 29, 929.5.	0.5	0
119	Systemic Effects of ATâ€121 as a Safe Analgesic without Abuse Liability in Primates. FASEB Journal, 2016, 30, 927.10.	0.5	0
120	Reinforcing, Antinociceptive, and Pruritic Effects of a G Proteinâ€Biased Mu Opioid Receptor Agonist, PZM21, in Primates. FASEB Journal, 2018, 32, 683.3.	0.5	0
121	Spinal GRP mediates itch in nonhuman primates. Pain Research, 2018, 33, 308-314.	0.1	0
122	Comparison of Reinforcing and Antinociceptive Effects of Agonists with Mixed NOP and MOP Receptor Agonist Action in Nonhuman Primates. FASEB Journal, 2019, 33, 498.4.	0.5	0