M Charles Liberman

List of Publications by Year
in descending order

133 papers	20,582 citations	17776 65 h-index	16791 127 g-index
140 all docs	140 docs citations	140 times ranked	7907 citing authors

#	Article	IF	Citations
1	Age-related reduction in frequency-following responses as a potential marker of cochlear neural degeneration. Hearing Research, 2022, 414, 108411.	0.9	8
2	Peristimulus Time Responses Predict Adaptation and Spontaneous Firing of Auditory-Nerve Fibers: From Rodents Data to Humans. Journal of Neuroscience, 2022, 42, 2253-2267.	1.7	5
3	Human vestibular schwannoma reduces density of auditory nerve fibers in the osseous spiral lamina. Hearing Research, 2022, 418, 108458.	0.9	7
4	Noise masking in cochlear synaptopathy: auditory brainstem response vs. auditory nerve response in mouse. Journal of Neurophysiology, 2022, 127, 1574-1585.	0.9	1
5	Dopaminergic and cholinergic innervation in the mouse cochlea after noise-induced or age-related synaptopathy. Hearing Research, 2022, 422, 108533.	0.9	7
6	Predicting neural deficits in sensorineural hearing loss from word recognition scores. Scientific Reports, 2022, 12, .	1.6	16
7	Age-related stereocilia pathology in the human cochlea. Hearing Research, 2022, 422, 108551.	0.9	12
8	Correlations between cochlear pathophysiology and behavioral measures of temporal and spatial processing in noise exposed macaques. Hearing Research, 2021, 401, 108156.	0.9	4
9	Envelope following responses predict speech-in-noise performance in normal-hearing listeners. Journal of Neurophysiology, 2021, 125, 1213-1222.	0.9	38
10	Primary Neural Degeneration in Noise-Exposed Human Cochleas: Correlations with Outer Hair Cell Loss and Word-Discrimination Scores. Journal of Neuroscience, 2021, 41, 4439-4447.	1.7	58
11	Cochlear Synaptic Degeneration and Regeneration After Noise: Effects of Age and Neuronal Subgroup. Frontiers in Cellular Neuroscience, 2021, 15, 684706.	1.8	23
12	Idiopathic Sudden Sensorineural Hearing Loss: Speech Intelligibility Deficits Following Threshold Recovery. Ear and Hearing, 2021, 42, 782-792.	1.0	7
13	The summating potential in human electrocochleography: Gaussian models and Fourier analysis. Journal of the Acoustical Society of America, 2021, 150, 2492-2502.	0.5	8
14	Auditory-nerve responses in mice with noise-induced cochlear synaptopathy. Journal of Neurophysiology, 2021, 126, 2027-2038.	0.9	35
15	Assessing fractional hair cell survival in archival human temporal bones. Laryngoscope, 2020, 130, 487-495.	1.1	24
16	Noise-induced Cochlear Synaptopathy with and Without Sensory Cell Loss. Neuroscience, 2020, 427, 43-57.	1.1	91
17	Middle Ear Muscle Reflex and Word Recognition in â€œNormal-Hearingâ€•Adults: Evidence for Cochlear Synaptopathy?. Ear and Hearing, 2020, 41, 25-38.	1.0	67
18	Chronic Conductive Hearing Loss Is Associated With Speech Intelligibility Deficits in Patients With Normal Bone Conduction Thresholds. Ear and Hearing, 2020, 41, 500-507.	1.0	16

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19	Age-Related Hearing Loss Is Dominated by Damage to Inner Ear Sensory Cells, Not the Cellular Battery That Powers Them. Journal of Neuroscience, 2020, 40, 6357-6366.	1.7	147
20	Synaptic migration and reorganization after noise exposure suggests regeneration in a mature mammalian cochlea. Scientific Reports, 2020, 10, 19945.	1.6	41
21	Electrophysiological markers of cochlear function correlate with hearing-in-noise performance among audiometrically normal subjects. Journal of Neurophysiology, 2020, 124, 418-431.	0.9	43
22	Hidden hearing loss: Primary neural degeneration in the noise-damaged and aging cochlea. Acoustical Science and Technology, 2020, 41, 59-62.	0.3	8
23	Morphological Immaturity of the Neonatal Organ of Corti and Associated Structures in Humans. JARO - Journal of the Association for Research in Otolaryngology, 2019, 20, 461-474.	0.9	17
24	Protection from noise-induced cochlear synaptopathy by virally mediated overexpression of NT3. Scientific Reports, 2019, 9, 15362.	1.6	36
25	Cochlear Efferent Innervation Is Sparse in Humans and Decreases with Age. Journal of Neuroscience, 2019, 39, 9560-9569.	1.7	31
26	A simple algorithm for objective threshold determination of auditory brainstem responses. Hearing Research, 2019, 381, 107782.	0.9	22
27	Translating animal models to human therapeutics in noise-induced and age-related hearing loss. Hearing Research, 2019, 377, 44-52.	0.9	75
28	Treatment of autosomal dominant hearing loss by in vivo delivery of genome editing agents. Nature, 2018, 553, 217-221.	13.7	412
29	A Gain-of-Function Mutation in the Î±9 Nicotinic Acetylcholine Receptor Alters Medial Olivocochlear Efferent Short-Term Synaptic Plasticity. Journal of Neuroscience, 2018, 38, 3939-3954.	1.7	22
30	Effects of cochlear synaptopathy on middle-ear muscle reflexes in unanesthetized mice. Hearing Research, 2018, 363, 109-118.	0.9	70
31	Cochlear Synaptopathy Changes Sound-Evoked Activity Without Changing Spontaneous Discharge in the Mouse Inferior Colliculus. Frontiers in Systems Neuroscience, 2018, 12, 59.	1.2	21
32	Glutamatergic Projections to the Cochlear Nucleus are Redistributed in Tinnitus. Neuroscience, 2018, 391, 91-103.	1.1	29
33	Loss of <i>LDAH</i> associated with prostate cancer and hearing loss. Human Molecular Genetics, 2018, 27, 4194-4203.	1.4	14
34	Sensory Neuron Diversity in the Inner Ear Is Shaped by Activity. Cell, 2018, 174, 1229-1246.e17.	13.5	309
35	Cochlear synaptopathy in acquired sensorineural hearing loss: Manifestations and mechanisms. Hearing Research, 2017, 349, 138-147.	0.9	498
36	Cochlear gene therapy with ancestral AAV in adult mice: complete transduction of inner hair cells without cochlear dysfunction. Scientific Reports, 2017, 7, 45524.	1.6	138

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37	Noise-induced and age-related hearing loss: Ânew perspectives and potential therapies. F1000Research, 2017, 6, 927.	0.8	216
38	Toward a Differential Diagnosis of Hidden Hearing Loss in Humans. PLoS ONE, 2016, 11, e0162726.	1.1	449
39	Auditory Brainstem Response Latency in Noise as a Marker of Cochlear Synaptopathy. Journal of Neuroscience, 2016, 36, 3755-3764.	1.7	188
40	Round-window delivery of neurotrophin 3 regenerates cochlear synapses after acoustic overexposure. Scientific Reports, 2016, 6, 24907.	1.6	184
41	Postnatal maturation of auditory-nerve heterogeneity, as seen in spatial gradients of synapse morphology in the inner hair cell area. Hearing Research, 2016, 339, 12-22.	0.9	58
42	Oncomodulin, an EF-Hand Ca²⁺Buffer, Is Critical for Maintaining Cochlear Function in Mice. Journal of Neuroscience, 2016, 36, 1631-1635.	1.7	47
43	Central Gain Restores Auditory Processing following Near-Complete Cochlear Denervation. Neuron, 2016, 89, 867-879.	3.8	259
44	Perinatal thiamine deficiency causes cochlear innervation abnormalities in mice. Hearing Research, 2016, 335, 94-104.	0.9	9
45	The middle ear muscle reflex in the diagnosis of cochlear neuropathy. Hearing Research, 2016, 332, 29-38.	0.9	89
46	Noise-Induced Hearing Loss: Permanent Versus Temporary Threshold Shifts and the Effects of Hair Cell Versus Neuronal Degeneration. Advances in Experimental Medicine and Biology, 2016, 875, 1-7.	0.8	58
47	Type II Cochlear Ganglion Neurons Do Not Drive the Olivocochlear Reflex: Re-Examination of the Cochlear Phenotype in Peripherin Knock-Out Mice. ENeuro, 2016, 3, ENEURO.0207-16.2016.	0.9	33
48	Immediate and Delayed Cochlear Neuropathy after Noise Exposure in Pubescent Mice. PLoS ONE, 2015, 10, e0125160.	1.1	82
49	Chronic Conductive Hearing Loss Leads to Cochlear Degeneration. PLoS ONE, 2015, 10, e0142341.	1.1	49
50	Cochlear neuropathy in human presbycusis: Confocal analysis of hidden hearing loss in post-mortem tissue. Hearing Research, 2015, 327, 78-88.	0.9	306
51	A Non-canonical Pathway from Cochlea to Brain Signals Tissue-Damaging Noise. Current Biology, 2015, 25, 606-612.	1.8	119
52	Adenomatous Polyposis Coli Protein Deletion in Efferent Olivocochlear Neurons Perturbs Afferent Synaptic Maturation and Reduces the Dynamic Range of Hearing. Journal of Neuroscience, 2015, 35, 9236-9245.	1.7	23
53	Synaptopathy in the noise-exposed and aging cochlea: Primary neural degeneration in acquired sensorineural hearing loss. Hearing Research, 2015, 330, 191-199.	0.9	573
54	Dynamics of cochlear synaptopathy after acoustic overexposure. JARO - Journal of the Association for Research in Otolaryngology, 2015, 16, 205-219.	0.9	213

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55	Aging after Noise Exposure: Acceleration of Cochlear Synaptopathy in â€œRecoveredâ€•Ears. Journal of Neuroscience, 2015, 35, 7509-7520.	1.7	277
56	Towards a Diagnosis of Cochlear Neuropathy with Envelope Following Responses. JARO - Journal of the Association for Research in Otolaryngology, 2015, 16, 727-745.	0.9	171
57	Cochlear neuropathy and the coding of supra-threshold sound. Frontiers in Systems Neuroscience, 2014, 8, 26.	1.2	212
58	Is noise-induced cochlear neuropathy key to the generation of hyperacusis or tinnitus?. Journal of Neurophysiology, 2014, 111, 552-564.	0.9	274
59	Ouabain-Induced Cochlear Nerve Degeneration: Synaptic Loss and Plasticity in a Mouse Model of Auditory Neuropathy. JARO - Journal of the Association for Research in Otolaryngology, 2014, 15, 31-43.	0.9	79
60	Efferent Feedback Slows Cochlear Aging. Journal of Neuroscience, 2014, 34, 4599-4607.	1.7	116
61	Olivocochlear Innervation Maintains the Normal Modiolar-Pillar and Habenular-Cuticular Gradients in Cochlear Synaptic Morphology. JARO - Journal of the Association for Research in Otolaryngology, 2014, 15, 571-583.	0.9	72
62	Resistance to Noise-Induced Hearing Loss in 129S6 and MOLF Mice: Identification of Independent, Overlapping, and Interacting Chromosomal Regions. JARO - Journal of the Association for Research in Otolaryngology, 2014, 15, 721-738.	0.9	11
63	Neurotrophin-3 regulates ribbon synapse density in the cochlea and induces synapse regeneration after acoustic trauma. ELife, 2014, 3, .	2.8	209
64	Age-Related Cochlear Synaptopathy: An Early-Onset Contributor to Auditory Functional Decline. Journal of Neuroscience, 2013, 33, 13686-13694.	1.7	631
65	Efferent Feedback Minimizes Cochlear Neuropathy from Moderate Noise Exposure. Journal of Neuroscience, 2013, 33, 5542-5552.	1.7	187
66	Noise-induced cochlear neuropathy is selective for fibers with low spontaneous rates. Journal of Neurophysiology, 2013, 110, 577-586.	0.9	626
67	Olivocochlear suppression of outer hair cells in vivo: evidence for combined action of BK and SK2 channels throughout the cochlea. Journal of Neurophysiology, 2013, 109, 1525-1534.	0.9	44
68	Inner Hair Cells Are Not Required for Survival of Spiral Ganglion Neurons in the Adult Cochlea. Journal of Neuroscience, 2012, 32, 405-410.	1.7	119
69	Dopaminergic Signaling in the Cochlea: Receptor Expression Patterns and Deletion Phenotypes. Journal of Neuroscience, 2012, 32, 344-355.	1.7	80
70	Contralateral-noise effects on cochlear responses in anesthetized mice are dominated by feedback from an unknown pathway. Journal of Neurophysiology, 2012, 108, 491-500.	0.9	16
71	Sound-Evoked Olivocochlear Activation in Unanesthetized Mice. JARO - Journal of the Association for Research in Otolaryngology, 2012, 13, 209-217.	0.9	54
72	Opposing Gradients of Ribbon Size and AMPA Receptor Expression Underlie Sensitivity Differences among Cochlear-Nerve/Hair-Cell Synapses. Journal of Neuroscience, 2011, 31, 801-808.	1.7	226

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73	Selective Inner Hair Cell Loss in Prematurity: A Temporal Bone Study of Infants from a Neonatal Intensive Care Unit. JARO - Journal of the Association for Research in Otolaryngology, 2011, 12, 595-604.	0.9	36
74	Primary Neural Degeneration in the Guinea Pig Cochlea After Reversible Noise-Induced Threshold Shift. JARO - Journal of the Association for Research in Otolaryngology, 2011, 12, 605-616.	0.9	446
75	Age-Related Primary Cochlear Neuronal Degeneration in Human Temporal Bones. JARO - Journal of the Association for Research in Otolaryngology, 2011, 12, 711-717.	0.9	325
76	Three-Dimensional Imaging of the Mouse Organ of Corti Cytoarchitecture for Mechanical Modeling. AIP Conference Proceedings, 2011, , .	0.3	2
77	Olivocochlear Efferent Control in Sound Localization and Experience-Dependent Learning. Journal of Neuroscience, 2011, 31, 2493-2501.	1.7	62
78	Mice Lacking Adrenergic Signaling Have Normal Cochlear Responses and Normal Resistance to Acoustic Injury but Enhanced Susceptibility to Middle-Ear Infection. JARO - Journal of the Association for Research in Otolaryngology, 2010, 11, 449-461.	0.9	18
79	Muscarinic Signaling in the Cochlea: Presynaptic and Postsynaptic Effects on Efferent Feedback and Afferent Excitability. Journal of Neuroscience, 2010, 30, 6751-6762.	1.7	27
80	Onset Coding Is Degraded in Auditory Nerve Fibers from Mutant Mice Lacking Synaptic Ribbons. Journal of Neuroscience, 2010, 30, 7587-7597.	1.7	186
81	Contralateral cochlear effects of ipsilateral damage: No evidence for interaural coupling. Hearing Research, 2010, 260, 70-80.	0.9	21
82	Bassoon and the Synaptic Ribbon Organize Ca2+ Channels and Vesicles to Add Release Sites and Promote Refilling. Neuron, 2010, 68, 724-738.	3.8	250
83	Nonneuronal cells regulate synapse formation in the vestibular sensory epithelium via erbB-dependent BDNF expression. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17005-17010.	3.3	85
84	Adding Insult to Injury: Cochlear Nerve Degeneration after â€œTemporaryâ€• Noise-Induced Hearing Loss. Journal of Neuroscience, 2009, 29, 14077-14085.	1.7	1,999
85	A Point Mutation in the Hair Cell Nicotinic Cholinergic Receptor Prolongs Cochlear Inhibition and Enhances Noise Protection. PLoS Biology, 2009, 7, e1000018.	2.6	109
86	Loss of GABAB Receptors in Cochlear Neurons: Threshold Elevation Suggests Modulation of Outer Hair Cell Function by Type II Afferent Fibers. JARO - Journal of the Association for Research in Otolaryngology, 2009, 10, 50-63.	0.9	30
87	Slow build-up of cochlear suppression during sustained contralateral noise: Central modulation of olivocochlear efferents?. Hearing Research, 2009, 256, 1-10.	0.9	15
88	Preservation of cochlear function in Cd39 deficient mice. Hearing Research, 2009, 253, 77-82.	0.9	5
89	SK2 channels are required for function and long-term survival of efferent synapses on mammalian outer hair cells. Molecular and Cellular Neurosciences, 2009, 40, 39-49.	1.0	42
90	Reciprocal Synapses Between Outer Hair Cells and their Afferent Terminals: Evidence for a Local Neural Network in the Mammalian Cochlea. JARO - Journal of the Association for Research in Otolaryngology, 2008, 9, 477-489.	0.9	59

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91	The Î±10 nicotinic acetylcholine receptor subunit is required for normal synaptic function and integrity of the olivocochlear system. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 20594-20599.	3.3	121
92	A Novel Effect of Cochlear Efferents: In Vivo Response Enhancement Does Not Require Î±9 Cholinergic Receptors. Journal of Neurophysiology, 2007, 97, 3269-3278.	0.9	41
93	Selective Removal of Lateral Olivocochlear Efferents Increases Vulnerability to Acute Acoustic Injury. Journal of Neurophysiology, 2007, 97, 1775-1785.	0.9	106
94	Overexpression of SK2 Channels Enhances Efferent Suppression of Cochlear Responses Without Enhancing Noise Resistance. Journal of Neurophysiology, 2007, 97, 2930-2936.	0.9	26
95	Dynamic patterns of neurotrophin 3 expression in the postnatal mouse inner ear. Journal of Comparative Neurology, 2007, 501, 30-37.	0.9	93
96	Acceleration of Age-Related Hearing Loss by Early Noise Exposure: Evidence of a Misspent Youth. Journal of Neuroscience, 2006, 26, 2115-2123.	1.7	589
97	Cochlear efferent feedback balances interaural sensitivity. Nature Neuroscience, 2006, 9, 1474-1476.	7.1	130
98	Dopaminergic innervation of the mouse inner ear: Evidence for a separate cytochemical group of cochlear efferent fibers. Journal of Comparative Neurology, 2006, 498, 403-414.	0.9	82
99	The Role of BKCa Channels in Electrical Signal Encoding in the Mammalian Auditory Periphery. Journal of Neuroscience, 2006, 26, 6181-6189.	1.7	75
100	Functional Role of GABAergic Innervation of the Cochlea: Phenotypic Analysis of Mice Lacking GABAA Receptor Subunits Â1, Â2, Â5, Â6, beta2, beta3, or Â. Journal of Neuroscience, 2006, 26, 10315-10326.	1.7	75
101	Influence of Supporting Cells on Neuronal Degeneration After Hair Cell Loss. JARO - Journal of the Association for Research in Otolaryngology, 2005, 6, 136-147.	0.9	107
102	Response Properties of Single Auditory Nerve Fibers in the Mouse. Journal of Neurophysiology, 2005, 93, 557-569.	0.9	425
103	Survival of Adult Spiral Ganglion Neurons Requires erbB Receptor Signaling in the Inner Ear. Journal of Neuroscience, 2004, 24, 8651-8661.	1.7	183
104	Lateral Wall Histopathology and Endocochlear Potential in the Noise-Damaged Mouse Cochlea. JARO - Journal of the Association for Research in Otolaryngology, 2003, 4, 339-352.	0.9	239
105	Olivocochlear innervation in the mouse: Immunocytochemical maps, crossed versus uncrossed contributions, and transmitter colocalization. Journal of Comparative Neurology, 2003, 455, 406-416.	0.9	168
106	Loss of Î±CGRP Reduces Sound-Evoked Activity in the Cochlear Nerve. Journal of Neurophysiology, 2003, 90, 2941-2949.	0.9	63
107	Modulation of Cochlear Afferent Response by the Lateral Olivocochlear System: Activation Via Electrical Stimulation of the Inferior Colliculus. Journal of Neurophysiology, 2003, 90, 3178-3200.	0.9	142
108	Restraint stress and protection from acoustic injury in mice. Hearing Research, 2002, 165, 96-102.	0.9	118

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109	Dynamics of Noise-Induced Cellular Injury and Repair in the Mouse Cochlea. , 2002, 3, 248-268.		453
110	Prestin is required for electromotility of the outer hair cell and for the cochlear amplifier. Nature, 2002, 419, 300-304.	13.7	809
111	Urocortin-deficient mice show hearing impairment and increased anxiety-like behavior. Nature Genetics, 2002, 31, 363-369.	9.4	163
112	Fast, But Not Slow, Effects of Olivocochlear Activation Are Resistant to Apamin. Journal of Neurophysiology, 2001, 85, 84-88.	0.9	21
113	Selective Inner Hair Cell Loss in Premature Infants and Cochlea Pathological Patterns From Neonatal Intensive Care Unit Autopsies. JAMA Otolaryngology, 2001, 127, 629.	1.5	91
114	Effects of Olivocochlear Feedback on Distortion Product Otoacoustic Emissions in Guinea Pig. , 2001, 2, 268-278.		58
115	Spiral Ligament Pathology: A Major Aspect of Age-Related Cochlear Degeneration in C57BL/6 Mice. , 2001, 2, 118-129.		256
116	Morphometric Analysis of Age-Related Changes in the Human Basilar Membrane. Annals of Otology, Rhinology and Laryngology, 2001, 110, 1147-1153.	0.6	38
117	Afferent innervation of outer and inner hair cells is normal in neonatally de-efferented cats. Journal of Comparative Neurology, 2000, 423, 132-139.	0.9	21
118	Predicting Vulnerability to Acoustic Injury with a Noninvasive Assay of Olivocochlear Reflex Strength. Journal of Neuroscience, 2000, 20, 4701-4707.	1.7	278
119	Gentamicin Blocks Both Fast and Slow Effects of Olivocochlear Activation in Anesthetized Guinea Pigs. Journal of Neurophysiology, 1999, 82, 3168-3174.	0.9	26
120	Long-Term Effects of Sectioning the Olivocochlear Bundle in Neonatal Cats. Journal of Neuroscience, 1998, 18, 3859-3869.	1.7	130
121	Conditioning-Related Protection From Acoustic Injury: Effects of Chronic Deefferentation and Sham Surgery. Journal of Neurophysiology, 1997, 78, 3095-3106.	0.9	122
122	Ultrastructural differences among afferent synapses on cochlear hair cells: Correlations with spontaneous discharge rate. , 1996, 371, 208-221.		178
123	Morphological subclasses of lateral olivocochlear terminals? Ultrastructural analysis of inner spiral bundle in cat and guinea pig. , 1996, 371, 621-622.		12
124	Ultrastructural differences among afferent synapses on cochlear hair cells: Correlations with spontaneous discharge rate. , 1996, 371, 208.		2
125	Central projections of auditory nerve fibers of differing spontaneous rate, II: Posteroventral and dorsal cochlear nuclei. Journal of Comparative Neurology, 1993, 327, 17-36.	0.9	112
126	Spatial organization of the auditory nerve according to spontaneous discharge rate. Journal of Comparative Neurology, 1992, 319, 312-318.	0.9	49

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127	Central projections of auditory-nerve fibers of differing spontaneous rate. I. Anteroventral cochlear nucleus. Journal of Comparative Neurology, 1991, 313, 240-258.	0.9	227
128	Afferent and efferent innervation of the cat cochlea: Quantitative analysis with light and electron microscopy. Journal of Comparative Neurology, 1990, 301, 443-460.	0.9	378
129	Structure-Function Correlation in Noise-Damaged Ears: A Light and Electron-Microscopic Study. , 1986, , 163-177.		33
130	Applications of neuronal labeling techniques to the study of the peripheral auditory system. Journal of the Acoustical Society of America, 1985, 78, 312-319.	0.5	30
131	Morphometry of intracellularly labeled neurons of the auditory nerve: Correlations with functional properties. Journal of Comparative Neurology, 1984, 223, 163-176.	0.9	264
132	The cochlear frequency map for the cat: Labeling auditoryâ€nerve fibers of known characteristic frequency. Journal of the Acoustical Society of America, 1982, 72, 1441-1449.	0.5	437
133	Auditoryâ€nerve response from cats raised in a lowâ€noise chamber. Journal of the Acoustical Society of America, 1978, 63, 442-455.	0.5	1,160