Alessandra Alberti

List of Publications by Year
in descending order

130	2,725	236612	223531
papers	citations	25 h-index	46 g-index

135	135	135	3982
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stability of solution-processed MAPbI₃ and FAPbI₃ layers. Physical Chemistry Chemical Physics, 2016, 18, 13413-13422.	1.3	208
2	Elusive Presence of Chloride in Mixed Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 3532-3538.	2.1	175
3	Temperature-Dependent Optical Band Gap in CsPbBr₃, MAPbBr₃, and FAPbBr₃ Single Crystals. Journal of Physical Chemistry Letters, 2020, 11, 2490-2496.	2.1	173
4	Atomistic origins of CH3NH3PbI3 degradation to PbI2 in vacuum. Applied Physics Letters, 2015, 106, .	1.5	158
5	Pb clustering and PbI2 nanofragmentation during methylammonium lead iodide perovskite degradation. Nature Communications, 2019, 10, 2196.	5.8	116
6	Stability and Degradation in Hybrid Perovskites: Is the Glass Half-Empty or Half-Full?. Journal of Physical Chemistry Letters, 2018, 9, 3000-3007.	2.1	102
7	Temperature dependence of the specific resistance in Tiâˆ•Alâˆ•Niâˆ•Au contacts on n-type GaN. Journal of Applied Physics, 2006, 100, 123706.	1.1	80
8	Similar Structural Dynamics for the Degradation of CH₃NH₃PbI₃ in Air and in Vacuum. ChemPhysChem, 2015, 16, 3064-3071.	1.0	80
9	Flexible pH sensors based on polysilicon thin film transistors and ZnO nanowalls. Applied Physics Letters, 2014, 105, .	1.5	71
10	Nanoscale carrier transport in Tiâˆ•Alâˆ•Niâˆ•Au Ohmic contacts on AlGaN epilayers grown on Si(111). Applied Physics Letters, 2006, 89, 022103.	1.5	68
11	First Evidence of CH₃NH₃PbI₃ Optical Constants Improvement in a N₂ Environment in the Range 40â€“80 Â°C. Journal of Physical Chemistry C, 2017, 121, 7703-7710.	1.5	49
12	Nitrogen Soaking Promotes Lattice Recovery inÂPolycrystalline Hybrid Perovskites. Advanced Energy Materials, 2019, 9, 1803450.	10.2	46
13	Spontaneous bidirectional ordering of CH3NH3+ in lead iodide perovskites at room temperature: The origins of the tetragonal phase. Scientific Reports, 2016, 6, 24443.	1.6	37
14	Revealing a Discontinuity in the Degradation Behavior of CH₃NH₃PbI₃ during Thermal Operation. Journal of Physical Chemistry C, 2017, 121, 13577-13585.	1.5	37
15	Texture of MAPbI₃ Layers Assisted by Chloride on Flat TiO₂ Substrates. Journal of Physical Chemistry C, 2015, 119, 19808-19816.	1.5	36
16	Multi-Scale-Porosity TiO2 scaffolds grown by innovative sputtering methods for high throughput hybrid photovoltaics. Scientific Reports, 2016, 6, 39509.	1.6	34
17	AlN texturing and piezoelectricity on flexible substrates for sensor applications. Applied Physics Letters, 2015, 106, .	1.5	33
18	Structural and electronic transitions in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">G</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">b</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">	1.1	33

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19	Local Order and Rotational Dynamics in Mixed A-Cation Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 1068-1074.	2.1	31
20	Barrier inhomogeneity in vertical Schottky diodes on free standing gallium nitride. Materials Science in Semiconductor Processing, 2019, 94, 164-170.	1.9	30
21	A decision support system for optimising the selection of parameters when planning milling operations. International Journal of Machine Tools and Manufacture, 2005, 45, 201-210.	6.2	29
22	Efficiency Enhancement in ZnO:Al-Based Dye-Sensitized Solar Cells Structured with Sputtered TiO₂Blocking Layers. Journal of Physical Chemistry C, 2014, 118, 6576-6585.	1.5	29
23	Dye-Sensitizing of Self-Nanostructured Ti(:Zn)O₂/AZO Transparent Electrodes by Self-Assembly of 5,10,15,20-Tetrakis(4-carboxyphenyl)porphyrin. Journal of Physical Chemistry C, 2011, 115, 7760-7767.	1.5	28
24	Fast and Efficient Sun Light Photocatalytic Activity of Au_ZnO Coreâ€“Shell Nanoparticles Prepared by a One-Pot Synthesis. ACS Omega, 2019, 4, 15061-15066.	1.6	28
25	Nanostructured TiO₂ Grown by Low-Temperature Reactive Sputtering for Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 6218-6229.	2.5	27
26	From PbI₂ to MAPbI₃ through Layered Intermediates. Journal of Physical Chemistry C, 2016, 120, 19768-19777.	1.5	26
27	CsPbBr₃, MAPbBr₃, and FAPbBr₃ Bromide Perovskite Single Crystals: Interband Critical Points under Dry N₂ and Optical Degradation under Humid Air. Journal of Physical Chemistry C, 2021, 125, 4938-4945.	1.5	26
28	Pseudoepitaxial transrotational structures in 14â€…nm-thick NiSi layers on [001] silicon. Acta Crystallographica Section B: Structural Science, 2005, 61, 486-491.	1.8	25
29	Morphological and electrical properties of Nickel based Ohmic contacts formed by laser annealing process on n-type 4H-SiC. Materials Science in Semiconductor Processing, 2019, 97, 62-66.	1.9	25
30	Two-step MAPbI₃ deposition by low-vacuum proximity-space-effusion for high-efficiency inverted semitransparent perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 16456-16469.	5.2	25
31	Thermal stability of thin CoSi[sub 2] layers on polysilicon implanted with As, BF[sub 2], and Si. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 1129.	1.6	24
32	Role of the early stages of Ni-Si interaction on the structural properties of the reaction products. Journal of Applied Physics, 2013, 114, .	1.1	24
33	Innovative spongy TiO2 layers for gas detection at low working temperature. Sensors and Actuators B: Chemical, 2018, 259, 658-667.	4.0	23
34	Study of the Anchoring Process of Tethered Unsymmetrical Zn-Phthalocyanines on TiO₂ Nanostructured Thin Films. Journal of Physical Chemistry C, 2013, 117, 11176-11185.	1.5	22
35	Carbonization and transition layer effects on 3C-SiC film residual stress. Journal of Crystal Growth, 2017, 473, 11-19.	0.7	22
36	Thermal stability of cobalt silicide stripes on Si (001). Journal of Applied Physics, 1999, 86, 3089-3095.	1.1	21

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37	Nanoscale electrical and structural modification induced by rapid thermal oxidation of AlGaN/GaN heterostructures. Nanotechnology, 2014, 25, 025201.	1.3	21
38	Low-cost high-haze films based on ZnO nanorods for light scattering in thin c-Si solar cells. Applied Physics Letters, 2015, 106, .	1.5	21
39	Performance of natural-dye-sensitized solar cells by ZnO nanorod and nanowall enhanced photoelectrodes. Beilstein Journal of Nanotechnology, 2017, 8, 287-295.	1.5	21
40	Critical nickel thickness to form silicide transrotational structures on [001] silicon. Applied Physics Letters, 2006, 89, 102105.	1.5	20
41	Anatase/Rutile nucleation and growth on (0002) and (11-20) oriented ZnO:Al/glass substrates at 150Â°C. Thin Solid Films, 2014, 555, 3-8.	0.8	19
42	Theoretical and experimental study of the role of cell-cell dipole interaction in dielectrophoretic devices: application to polynomial electrodes. BioMedical Engineering OnLine, 2014, 13, 71.	1.3	18
43	Interface state density evaluation of high quality hetero-epitaxial 3Câ€“SiC(001) for high-power MOSFET applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2015, 198, 14-19.	1.7	15
44	Temperature Investigation on 3C-SiC Homo-Epitaxy on Four-Inch Wafers. Materials, 2019, 12, 3293.	1.3	15
45	High-resolution investigation of atomic interdiffusion during Co/Ni/Si phase transition. Journal of Applied Physics, 2003, 94, 231-237.	1.1	14
46	Structural characterization of Ni2Si pseudoepitaxial transrotational structures on [001] Si. Acta Crystallographica Section B: Structural Science, 2006, 62, 729-736.	1.8	14
47	Simultaneous nickel silicidation and silicon crystallization induced by excimer laser annealing on plastic substrate. Applied Physics Letters, 2010, 96, 142113.	1.5	14
48	Fiber texturing in nano-crystalline TiO₂ thin films deposited at 150ÂÂ°C by dc-reactive sputtering on fiber-textured [0â€‰0â€‰0â€‰1] ZnOâ€‰:â€‰Al substrates. Journal Physics D: Applied Physics, 2012, 45, 355301.	1.2	14
49	Combined Strategy to Realize Efficient Photoelectrodes for Low Temperature Fabrication of Dye Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 6425-6433.	4.0	14
50	Low temperature sputtered TiO₂ nano sheaths on electrospun PES fibers as high porosity photoactive material. RSC Advances, 2015, 5, 73444-73450.	1.7	14
51	Barrier Inhomogeneity of Ni Schottky Contacts to Bulk GaN. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700613.	0.8	14
52	Thermally induced structural modifications of nano-sized anatase films and the effects on the dye-TiO2 surface interactions. Applied Surface Science, 2014, 296, 69-78.	3.1	13
53	Ion irradiation of AZO thin films for flexible electronics. Nuclear Instruments & Methods in Physics Research B, 2017, 392, 14-20.	0.6	13
54	Low temperature formation and evolution of a 10 nm amorphous Niâ€“Si layer on [001] silicon studied by in situ transmission electron microscopy. Journal of Applied Physics, 2009, 105, .	1.1	12

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55	Octahedral faceted Si nanoparticles as optical traps with enormous yield amplification. Scientific Reports, 2015, 5, 8354.	1.6	12
56	A Comparison Among Low Temperature Piezoelectric Flexible Sensors Based on Polysilicon TFTs for Advanced Tactile Sensing on Plastic. Journal of Display Technology, 2016, 12, 209-213.	1.3	12
57	Pervasive infiltration and multi-branch chemisorption of N-719 molecules into newly designed spongy TiO₂ layers deposited by gig-lox sputtering processes. Journal of Materials Chemistry A, 2017, 5, 25529-25538.	5.2	12
58	Ni/4H-SiC interaction and silicide formation under excimer laser annealing for ohmic contact. Materialia, 2020, 9, 100528.	1.3	12
59	Exploring the Structural Competition between the Black and the Yellow Phase of CsPbI3. Nanomaterials, 2021, 11, 1282.	1.9	12
60	Microstructure and current transport in Ti/Al/Ni/Au ohmic contacts to n-type AlGaN epilayers grown on Si(111). Superlattices and Microstructures, 2006, 40, 373-379.	1.4	11
61	Role of the Ge surface during the end of range dissolution. Applied Physics Letters, 2012, 101, .	1.5	11
62	Electrical Properties of Ultrathin SiO$_{2}$ Layer Deposited at 50 ^{circ}C by Inductively Coupled Plasma-Enahnced Chemical Vapor Deposition. Applied Physics Express, 2012, 5, 021103.	1.1	11
63	Strong infrared photoluminescence in highly porous layers of large faceted Si crystalline nanoparticles. Scientific Reports, 2016, 6, 25664.	1.6	11
64	Improvement of CoSi2 thermal stability by cavity formation. Applied Physics Letters, 2001, 79, 3419-3421.	1.5	10
65	Nucleation and growth of NiSi from Ni2Si transrotational domains. Applied Physics Letters, 2007, 90, 053507.	1.5	10
66	Structural and electrical characterization of silicided Ni/Au contacts formed at low temperature (<300â€‰Â°C) on p-type [001] silicon. Journal of Applied Physics, 2011, 110, .	1.1	10
67	Properties of Al2O3 thin films deposited on 4H-SiC by reactive ion sputtering. Materials Science in Semiconductor Processing, 2019, 93, 290-294.	1.9	10
68	Effects of N-induced heterogeneous nucleation and growth of cavities at the CoSi2/polycrystallineâ€“silicon interface. Applied Physics Letters, 2002, 81, 55-57.	1.5	9
69	Controlled Al3+ Incorporation in the ZnO Lattice at 188 Â°C by Soft Reactive Co-Sputtering for Transparent Conductive Oxides. Energies, 2016, 9, 433.	1.6	9
70	Outâ€ofâ€Glovebox Integration of Recyclable Europiumâ€Doped CsPbI₃ in Tripleâ€Mesoscopic Carbonâ€Based Solar Cells Exceeding 9% Efficiency. Solar Rrl, 2022, 6, .	3.1	9
71	Correlation between microstructure control, density and diffusion barrier properties of TiN(O) films. Microelectronic Engineering, 2002, 60, 81-87.	1.1	8
72	Nickel-affected silicon crystallization and silicidation on polyimide by multipulse excimer laser annealing. Journal of Applied Physics, 2010, 108, .	1.1	8

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73	Giant photoluminescence emission in crystalline faceted Si grains. Scientific Reports, 2013, 3, 2674.	1.6	8
74	Evaluation of 3C-SiC/Si residual stress and curvatures along different wafer direction. Materials Letters, 2014, 118, 130-133.	1.3	8
75	Influence of hydrofluoric acid treatment on electroless deposition of Au clusters. Beilstein Journal of Nanotechnology, 2017, 8, 183-189.	1.5	8
76	New Synthetic Route for the Growth of Î±-FeOOH/NH₂-Mil-101 Films on Copper Foil for High Surface Area Electrodes. ACS Omega, 2019, 4, 18495-18501.	1.6	8
77	Nitrogen doped spongy TiO2 layers for sensors application. Materials Science in Semiconductor Processing, 2019, 98, 44-48.	1.9	8
78	Full Efficiency Recovery in Hole-Transporting Layer-Free Perovskite Solar Cells With Free-Standing Dry-Carbon Top-Contacts. Frontiers in Chemistry, 2020, 8, 200.	1.8	8
79	Formation of CsPbI₃ Î³â€Phase at 80â€‰Â°C by Europiumâ€Assisted Snowplow Effect. Advanced Energy and Sustainability Research, 2021, 2, 2100091.	2.8	8
80	Blackâ€Yellow Bandgap Tradeâ€Off During Thermal Stability Tests in Lowâ€Temperature Euâ€Doped CsPbI₃. Solar Rrl, 2022, 6, .	3.1	8
81	Structural relationship of polycrystalline cobalt silicide lines to (001) silicon substrate and their thermal stability. Microelectronic Engineering, 2001, 55, 163-169.	1.1	7
82	Thermal stability of nickel silicide on silicon on insulator (SOI) material. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 114-115, 228-231.	1.7	7
83	Effect of a Ti Cap Layer on the Diffusion of Co Atoms during CoSi[sub 2] Reaction. Electrochemical and Solid-State Letters, 2005, 8, G47.	2.2	7
84	Schottky Barrier Inhomogeneities in Nickel Silicide Transrotational Contacts. Applied Physics Express, 2011, 4, 115701.	1.1	7
85	Nanoscale study of the current transport through transrotational NiSi/n-Si contacts by conductive atomic force microscopy. Applied Physics Letters, 2012, 101, 261906.	1.5	7
86	Mixed phase Ge2Sb2Te5 thin films with temperature independent resistivity. AIP Advances, 2013, 3, .	0.6	7
87	Metal/P-GaN Contacts on AlGaN/GaN Heterostructures for Normally-Off HEMTs. Materials Science Forum, 0, 858, 1170-1173.	0.3	7
88	Bimodal Porosity and Stability of a TiO2 Gig-Lox Sponge Infiltrated with Methyl-Ammonium Lead Iodide Perovskite. Nanomaterials, 2019, 9, 1300.	1.9	7
89	Heterogeneous growth of continuous ZIF-8 films on low-temperature amorphous silicon. Applied Surface Science, 2019, 473, 182-189.	3.1	7
90	Improved Electrical and Structural Stability in HTL-Free Perovskite Solar Cells by Vacuum Curing Treatment. Energies, 2020, 13, 3953.	1.6	7

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91	Inter-diffusion, melting and reaction interplay in Ni/4H-SiC under excimer laser annealing. Applied Surface Science, 2021, 539, 148218.	3.1	7
92	Simulation of the Growth Kinetics in Group IV Compound Semiconductors. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800597.	0.8	6
93	Optical behaviour of Î³-black CsPbI₃ phases formed by quenching from 80 Â°C and 325 Â°C. JPhys Materials, 2021, 4, 034011.	1.8	6
94	Simulations of the Ultra-Fast Kinetics in Ni-Si-C Ternary Systems under Laser Irradiation. Materials, 2021, 14, 4769.	1.3	6
95	Cobalt silicide thermal stability: from blanket thin film to submicrometer lines. Solid-State Electronics, 1999, 43, 1039-1044.	0.8	5
96	Silicided Au/Ni bilayer on p-type [0 0 1] silicon for low contact resistance metallization schemes. Microelectronic Engineering, 2013, 107, 196-199.	1.1	5
97	A strategy to stabilise the local structure of Ti4+ and Zn2+ species against aging in TiO2/aluminium-doped ZnO bi-layers for applications in hybrid solar cells. Journal of Applied Physics, 2014, 116, .	1.1	5
98	Stacking Faults Defects on 3C-SiC Homo-Epitaxial Films. Materials Science Forum, 0, 924, 124-127.	0.3	5
99	High Resolution Investigation of Stacking Fault Density by HRXRD and STEM. Materials Science Forum, 0, 963, 346-349.	0.3	5
100	Thermal stability of thin CoSi2 layers grown on amorphous silicon. Microelectronic Engineering, 1997, 37-38, 475-481.	1.1	4
101	Structural relationship of polycrystalline cobalt silicide lines to (001) silicon substrate. Applied Physics Letters, 1999, 75, 2924-2926.	1.5	4
102	Effect of lateral dimensional scaling on the thermal stability of thin CoSi[sub 2] layers reacted on polycrystalline silicon. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 717.	1.6	4
103	Structural characterization of inâ€ŧsitu silicided contacts textured on pâ€ŧype [001] silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 160-163.	0.8	4
104	Porous Gig-Lox TiO2 Doped with N2 at Room Temperature for P-Type Response to Ethanol. Chemosensors, 2019, 7, 12.	1.8	4
105	The effect of the reaction temperature on the thermal stability of polycrystalline CoSi2 layers on Si(001). Microelectronic Engineering, 2001, 55, 151-156.	1.1	3
106	Thin nickel silicide layer formation on silicon on insulator material. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 114-115, 42-45.	1.7	3
107	Effects of the Growth Rate on the Quality of 4H Silicon Carbide Films for MOSFET Applications. Materials Science Forum, 0, 778-780, 95-98.	0.3	3
108	3C-SiC Polycrystalline Films on Si for Photovoltaic Applications. Materials Science Forum, 0, 821-823, 189-192.	0.3	3

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109	Electrical Properties Evaluation on High Quality Hetero-Epitaxial 3C-SiC(001) for MOSFET Applications. Materials Science Forum, 2015, 821-823, 773-776.	0.3	3
110	Study of the role of particle-particle dipole interaction in dielectrophoretic devices for biomarkers identification. Lecture Notes in Electrical Engineering, 2015, , 9-12.	0.3	3
111	Effect of lateral dimension scaling on thermal stability of thin CoSi₂ layers on polysilicon implanted with Si. Materials Research Society Symposia Proceedings, 1998, 514, 381.	0.1	2
112	Study of CoSi2 thermal stability improved by interfacial cavities. Microelectronic Engineering, 2002, 64, 151-156.	1.1	2
113	Time resolved CoSi2 reaction in presence of Ti and TiN cap layers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 114-115, 232-235.	1.7	2
114	3C-SiC Growth on (001) Si Substrates by Using a Multilayer Buffer. Materials Science Forum, 0, 740-742, 263-266.	0.3	2
115	Low-temperature flexible piezoelectric AlN capacitor integrated on ultra-flexible poly-Si TFT for advanced tactile sensing. , 2014, , .		2
116	Role of the early stages of Ni-Si interaction on the formation of transrotational Ni-silicides. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 164-168.	0.8	2
117	Voids-Free 3C-SiC/Si Interface for High Quality Epitaxial Layer. Materials Science Forum, 2016, 858, 159-162.	0.3	2
118	Phase Transitions in Ge-Sb-Te Alloys Induced by Ion Irradiations. MRS Advances, 2016, 1, 2701-2709.	0.5	2
119	Structural and Electrical Characterization of Ni-Based Ohmic Contacts on 4H-SiC Formed by Solid-State Laser Annealing. Materials Science Forum, 0, 1062, 417-421.	0.3	2
120	Time resolved study on Co/Ni/a-Si phase transition during isothermal annealing at 400 Â°C. Microelectronic Engineering, 2003, 70, 191-195.	1.1	1
121	Diffusion phenomena in a Pt/IrO2/Ir/TiN/W multilayer structure during annealing in oxygen. Applied Physics Letters, 2004, 84, 209-211.	1.5	1
122	Ab Initio Investigations of Textured Ni2Si Films on Silicon. ECS Transactions, 2006, 3, 149-155.	0.3	1
123	Temperature Dependent Reaction of Thin Ni-Silicide Transrotational Layers on [001]Si. , 2007, , .		1
124	Rilievo in tempo reale di difetti superficiali su corpi in movimento a velocitÃ elevata con ultrasuoni senza contatto. Frattura Ed Integrita Strutturale, 2012, 6, 93-101.	0.5	1
125	MAPbI3 Deposition by LV-PSE on TiO2 for Photovoltaic Application. Frontiers in Electronics, 2021, 2, .	2.0	1
126	Effect of lateral dimensional scaling on the thermal stability of poly-CoSi2 reacted on Si (001). Microelectronic Engineering, 2000, 50, 179-186.	1.1	0

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127	Thermal stability of SiO[sub 2]/CoSi[sub 2]/polysilicon multilayer structures improved by cavity formation. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 880.	1.6	0
128	Structural and Optical Behaviour of MAPbI<inf>3</inf> Layers in Nitrogen and Humid Air. , 2018, , .		0
129	Nitrogen soaking promotes lattice recovery in polycrystalline hybrid perovskites. , 0, , .		0
130	Mesoporous Materials and Nanoscale Phenomena in Hybrid Photovoltaics. Nanomaterials, 2022, 12, 1307.	1.9	0