Siddhartha Das

List of Publications by Year in Descending Order

141 papers	4,146 citations	32 h-index	60 g-index
144 ext. papers	4,987 ext. citations	5.9 avg, IF	5.94 L-index

#	Paper	IF	Citations
141	Analytical solutions for nonionic and ionic diffusio-osmotic transport at soft and porous interfaces. *Physics of Fluids*, **2022**, 34, 022102	4.4	
140	Coalescence of Microscopic Polymeric Drops: Effect of Drop Impact Velocities. *Langmuir*, **2021**, 37, 13512-13526	4	6
139	Atomistic explorations of mechanisms dictating the shear thinning behavior and 3D printability of graphene flake infused epoxy inks. *Physical Chemistry Chemical Physics*, **2021**, 23, 24634-24645	3.6	2
138	Thermo-osmotic transport in nanochannels grafted with pH-responsive polyelectrolyte brushes modelled using augmented strong stretching theory. *Journal of Fluid Mechanics*, **2021**, 917,	3.7	2
137	Quantification of Mono- and Multivalent Counterion-Mediated Bridging in Polyelectrolyte Brushes. *Macromolecules*, **2021**, 54, 4154-4163	5.5	4
136	Overscreening, Co-Ion-Dominated Electroosmosis, and Electric Field Strength Mediated Flow Reversal in Polyelectrolyte Brush Functionalized Nanochannels. *ACS Nano*, **2021**, 15, 6507-6516	16.7	7
135	All-Atom Molecular Dynamics Simulations of the Temperature Response of Densely Grafted Polyelectrolyte Brushes. *Macromolecules*, **2021**, 54, 6342-6354	5.5	5
134	Boron Nitride Nanotube–Salt–Water Hybrid: Toward Zero-Dimensional Liquid Water and Highly Trapped Immobile Single Anions Inside One-Dimensional Nanostructures. *Journal of Physical Chemistry C*, **2021**, 125, 14006-14013	3.8	1
133	Hydrogen Bonding and Its Effect on the Orientational Dynamics of Water Molecules inside Polyelectrolyte Brush-Induced Soft and Active Nanoconfinement. *Macromolecules*, **2021**, 54, 2011-2021	5.5	5
132	Ultrathin and Ultrasensitive Printed Carbon Nanotube-Based Temperature Sensors Capable of Repeated Uses on Surfaces of Widely Varying Curvatures and Wettabilities. *ACS Applied Materials & Interfaces*, **2021**, 13, 10257-10270	9.5	10
131	Fully printed resonance-free broadband conical inductors using engineered magnetic inks. *Additive Manufacturing*, **2021**, 44, 102034	6.1	0
130	Wood Ionic Cable. *Small*, **2021**, 17, e2008200	11	2
129	Wetting Dynamics on Solvophilic, Soft, Porous, and Responsive Surfaces. *Macromolecules*, **2021**, 54, 584-596	5.5	4
128	Formation and Properties of a Self-Assembled Nanoparticle-Supported Lipid Bilayer Probed through Molecular Dynamics Simulations. *Langmuir*, **2020**, 36, 5524-5533	4	3
127	Strong stretching theory for pH-responsive polyelectrolyte brushes in large salt concentrations. *Physical Chemistry Chemical Physics*, **2020**, 22, 13536-13553	3.6	1
126	Densely Grafted Polyelectrolyte Brushes Trigger “Water-in-Salt”-like Scenarios and Ultraconfinement Effect. *Matter*, **2020**, 2, 1509-1521	12.7	11
125	Theoretical study on the massively augmented electro-osmotic water transport in polyelectrolyte brush functionalized nanoslits. *Physical Review E*, **2020**, 102, 013103	2.4	4

124	Coating for preventing nonspecific adhesion mediated biofouling in salty systems: Effect of the electrostatic and van der waals interactions. *Electrophoresis*, **2020**, 41, 657-665	3.6	0
123	On the wetting translucency of hexagonal boron nitride. *Physical Chemistry Chemical Physics*, **2020**, 22, 7710-7718	3.6	9
122	3D Printed Microdroplet Curing: Unravelling the Physics of On-Spot Photopolymerization. *ACS Applied Polymer Materials*, **2020**, 2, 966-976	4.3	3
121	Fire-Resistant Structural Material Enabled by an Anisotropic Thermally Conductive Hexagonal Boron Nitride Coating. *Advanced Functional Materials*, **2020**, 30, 1909196	15.6	37
120	High-Performance, Scalable Wood-Based Filtration Device with a Reversed-Tree Design. *Chemistry of Materials*, **2020**, 32, 1887-1895	9.6	29
119	Effect of Gas Flow Rates on Quality of Aerosol Jet Printed Traces With Nanoparticle Conducting Ink. *Journal of Electronic Packaging, Transactions of the ASME*, **2020**, 142,	2	4
118	Lipid flip-flop and desorption from supported lipid bilayers is independent of curvature. *PLoS ONE*, **2020**, 15, e0244460	3.7	2
117	Ionic current in nanochannels grafted with pH-responsive polyelectrolyte brushes modeled using augmented strong stretching theory. *Electrophoresis*, **2020**, 41, 554-561	3.6	5
116	Wettability of nanostructured hexagonal boron nitride surfaces: molecular dynamics insights on the effect of wetting anisotropy. *Physical Chemistry Chemical Physics*, **2020**, 22, 2488-2497	3.6	9
115	Quantifying Water Friction in Misaligned Graphene Channels under Ångström Confinements. *ACS Applied Materials & Interfaces*, **2020**, 12, 35757-35764	9.5	4
114	Water-free Localization of Anion at Anode for Small-Concentration Water-in-Salt Electrolytes Confined in Boron-Nitride Nanotube. *Cell Reports Physical Science*, **2020**, 1, 100246	6.1	2
113	All-atom molecular dynamics simulations of weak polyionic brushes: influence of charge density on the properties of polyelectrolyte chains, brush-supported counterions, and water molecules. *Soft Matter*, **2020**, 16, 7808-7822	3.6	8
112	Coarse-grained modelling of DNA plectoneme pinning in the presence of base-pair mismatches. *Nucleic Acids Research*, **2020**, 48, 10713-10725	20.1	2
111	Ionic diffusioosmotic transport in nanochannels grafted with pH-responsive polyelectrolyte brushes modeled using augmented strong stretching theory. *Physics of Fluids*, **2020**, 32, 042003	4.4	4
110	Direct-write printed broadband inductors. *Additive Manufacturing*, **2019**, 30, 100843	6.1	8
109	Supersolvophobic Soft Wetting: Nanoscale Elastocapillarity, Adhesion, and Retention of a Drop Behaving as a Nanoparticle. *Matter*, **2019**, 1, 1262-1273	12.7	5
108	Revisiting the strong stretching theory for pH-responsive polyelectrolyte brushes: effects of consideration of excluded volume interactions and an expanded form of the mass action law. *Soft Matter*, **2019**, 15, 559-574	3.6	17
107	Nanovesicles Versus Nanoparticle-Supported Lipid Bilayers: Massive Differences in Bilayer Structures and in Diffusivities of Lipid Molecules and Nanoconfined Water. *Langmuir*, **2019**, 35, 2702-2708	4	1

106	Interactions of gold and silica nanoparticles with plasma membranes get distinguished by the van der Waals forces: Implications for drug delivery, imaging, and theranostics. *Colloids and Surfaces B: Biointerfaces*, **2019**, 177, 433-439	6	9
105	Thermomechanical responses of microfluidic cantilever capture DNA melting and properties of DNA premelting states using picoliters of DNA solution. *Applied Physics Letters*, **2019**, 114, 173703	3.4	6
104	Cellulose ionic conductors with high differential thermal voltage for low-grade heat harvesting. *Nature Materials*, **2019**, 18, 608-613	27	187
103	Nature-inspired salt resistant bimodal porous solar evaporator for efficient and stable water desalination. *Energy and Environmental Science*, **2019**, 12, 1558-1567	35.4	269
102	Bioinspired Solar-Heated Carbon Absorbent for Efficient Cleanup of Highly Viscous Crude Oil. *Advanced Functional Materials*, **2019**, 29, 1900162	15.6	64
101	Electrostatics and Interactions of an Ionizable Silica Nanoparticle Approaching a Plasma Membrane. *Langmuir*, **2019**, 35, 4171-4181	4	1
100	Electrokinetic energy conversion in nanochannels grafted with pH-responsive polyelectrolyte brushes modelled using augmented strong stretching theory. *Soft Matter*, **2019**, 15, 5973-5986	3.6	15
99	Cracks in the 3D-printed conductive traces of silver nanoparticle ink. *Journal of Micromechanics and Microengineering*, **2019**, 29, 097001	2	4
98	Shape-driven arrest of coffee stain effect drives the fabrication of carbon-nanotube-graphene-oxide inks for printing embedded structures and temperature sensors. *Nanoscale*, **2019**, 11, 23402-23415	7.7	7
97	Non-monotonic dependence of fluid dissipation on fluid density in fluid-coupled nanoresonators. *Applied Physics Letters*, **2019**, 115, 251601	3.4	2
96	Direct-Write Printed, Solid-Core Solenoid Inductors with Commercially Relevant Inductances. *Advanced Materials Technologies*, **2019**, 4, 1800312	6.8	9
95	Theory of diffusioosmosis in a charged nanochannel. *Physical Chemistry Chemical Physics*, **2018**, 20, 10204-10212	3.6	20
94	Surface charges promote nonspecific nanoparticle adhesion to stiffer membranes. *Applied Physics Letters*, **2018**, 112, 163702	3.4	8
93	Electric double layer electrostatics of lipid-bilayer-encapsulated nanoparticles: Toward a better understanding of protocell electrostatics. *Electrophoresis*, **2018**, 39, 752-759	3.6	5
92	Effect of Plasma Membrane Semipermeability in Making the Membrane Electric Double Layer Capacitances Significant. *Langmuir*, **2018**, 34, 1760-1766	4	4
91	The Effect of Droplet Sizes on Overspray in Aerosol-Jet Printing. *Advanced Engineering Materials*, **2018**, 20, 1701084	3.5	35
90	Polyelectrolyte brush bilayers in weak interpenetration regime: Scaling theory and molecular dynamics simulations. *Physical Review E*, **2018**, 97, 032503	2.4	9
89	Soft wetting: Models based on energy dissipation or on force balance are equivalent. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E7233	11.5	3

88	High-Performance Solar Steam Device with Layered Channels: Artificial Tree with a Reversed Design. *Advanced Energy Materials*, **2018**, 8, 1701616	21.8	174
87	Water–Holey-Graphene Interactions: Route to Highly Enhanced Water-Accessible Graphene Surface Area. *ACS Applied Nano Materials*, **2018**, 1, 5907-5919	5.6	5
86	Electrokinetics in nanochannels grafted with poly-zwitterionic brushes. *Microfluidics and Nanofluidics*, **2018**, 22, 1	2.8	7
85	Flexible, Bio-Compatible Nanofluidic Ion Conductor. *Chemistry of Materials*, **2018**, 30, 7707-7713	9.6	36
84	Ion at Air-Water Interface Enhances Capillary Wave Fluctuations: Energetics of Ion Adsorption. *Journal of the American Chemical Society*, **2018**, 140, 12853-12861	16.4	9
83	Lubrication in polymer-brush bilayers in the weak interpenetration regime: Molecular dynamics simulations and scaling theories. *Physical Review E*, **2018**, 98, 022503	2.4	5
82	Highly enhanced liquid flows via thermoosmotic effects in soft and charged nanochannels. *Physical Chemistry Chemical Physics*, **2018**, 20, 24300-24316	3.6	10
81	Dynamics of a Water Nanodrop through a Holey Graphene Matrix: Role of Surface Functionalization, Capillarity, and Applied Forcing. *Journal of Physical Chemistry C*, **2018**, 122, 12243-12250	3.8	5
80	Efficient electrochemomechanical energy conversion in nanochannels grafted with end-charged polyelectrolyte brushes at medium and high salt concentration. *Soft Matter*, **2018**, 14, 5246-5255	3.6	20
79	Electrostatically motivated design of biomimetic nanoparticles: Promoting specific adhesion and preventing nonspecific adhesion simultaneously. *Applied Physics Letters*, **2018**, 112, 243702	3.4	4
78	Ionic Diffusoosmosis in Nanochannels Grafted with End-Charged Polyelectrolyte Brushes. *Journal of Physical Chemistry B*, **2018**, 122, 7450-7461	3.4	13
77	Roughness-Induced Chemical Heterogeneity Leads to Large Hydrophobicity in Wetting-Translucent Nanostructures. *Journal of Physical Chemistry C*, **2017**, 121, 10010-10017	3.8	16
76	Compression of polymer brushes in the weak interpenetration regime: scaling theory and molecular dynamics simulations. *Soft Matter*, **2017**, 13, 4159-4166	3.6	11
75	Effect of electric double layer on electro-spreading dynamics of electrolyte drops. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2017**, 514, 209-217	5.1	5
74	Drop spreading on a superhydrophobic surface: pinned contact line and bending liquid surface. *Physical Chemistry Chemical Physics*, **2017**, 19, 14442-14452	3.6	5
73	Mesoporous, Three-Dimensional Wood Membrane Decorated with Nanoparticles for Highly Efficient Water Treatment. *ACS Nano*, **2017**, 11, 4275-4282	16.7	272
72	Massively Enhanced Electroosmotic Transport in Nanochannels Grafted with End-Charged Polyelectrolyte Brushes. *Journal of Physical Chemistry B*, **2017**, 121, 3130-3141	3.4	31
71	Charge inversion and external salt effect in semi-permeable membrane electrostatics. *Journal of Membrane Science*, **2017**, 533, 364-377	9.6	11

70	Elasto-electro-capillarity: drop equilibrium on a charged, elastic solid. *Soft Matter*, **2017**, 13, 554-566	3.6	4
69	Thermodynamics, electrostatics, and ionic current in nanochannels grafted with pH-responsive end-charged polyelectrolyte brushes. *Electrophoresis*, **2017**, 38, 720-729	3.6	5
68	Positive zeta potential of a negatively charged semi-permeable plasma membrane. *Applied Physics Letters*, **2017**, 111, 063702	3.4	9
67	Interaction between a water drop and holey graphene: retarded imbibition and generation of novel water-graphene wetting states. *Physical Chemistry Chemical Physics*, **2017**, 19, 27421-27434	3.6	6
66	Tree-Inspired Design for High-Efficiency Water Extraction. *Advanced Materials*, **2017**, 29, 1704107	24	346
65	Inkwells for on-demand deposition rate measurement in aerosol-jet based 3D printing. *Journal of Micromechanics and Microengineering*, **2017**, 27, 097001	2	25
64	Dynamical theory of the inverted cheerios effect. *Soft Matter*, **2017**, 13, 6000-6010	3.6	11
63	Rich Mesostructures Derived from Natural Woods for Solar Steam Generation. *Joule*, **2017**, 1, 588-599	27.8	242
62	Aerosol-Jet Printed Fillets for Well-Formed Electrical Connections between Different Leveled Surfaces. *Advanced Materials Technologies*, **2017**, 2, 1700178	6.8	18
61	A High-Performance, Low-Tortuosity Wood-Carbon Monolith Reactor. *Advanced Materials*, **2017**, 29, 1604257	24	69
60	Role of plasma membrane surface charges in dictating the feasibility of membrane-nanoparticle interactions. *Applied Physics Letters*, **2017**, 111, 263702	3.4	9
59	Effect of Steam-Assisted Gravity Drainage Produced Water Properties on Oil/Water Transient Interfacial Tension. *Energy & Fuels*, **2016**, 30, 10714-10720	4.1	11
58	Scaling Relationships for Spherical Polymer Brushes Revisited. *Journal of Physical Chemistry B*, **2016** , 120, 5272-7	3.4	8
57	Liquid drops attract or repel by the inverted Cheerios effect. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 7403-7	11.5	78
56	Wetting dynamics of a water nanodrop on graphene. *Physical Chemistry Chemical Physics*, **2016**, 18, 23483-93	3.6	51
55	Efficient electrochemomechanical energy conversion in nanochannels grafted with polyelectrolyte layers with pH-dependent charge density. *Microfluidics and Nanofluidics*, **2016**, 20, 1	2.8	34
54	Electric double layer effects in water separation from water-in-oil emulsions. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2016**, 489, 216-222	5.1	9
53	Anomalous Shrinking-Swelling of Nanoconfined End-Charged Polyelectrolyte Brushes: Interplay of Confinement and Electrostatic Effects. *Journal of Physical Chemistry B*, **2016**, 120, 6848-57	3.4	18

52	Ultrafast Microwave Nano-manufacturing of Fullerene-Like Metal Chalcogenides. *Scientific Reports*, **2016**, 6, 22503	4.9	26
51	Solvo-thermal microwave-powered two-dimensional material exfoliation. *Chemical Communications* , **2016**, 52, 5757-60	5.8	23
50	Role of the Shuttleworth effect in adhesion on elastic surfaces. *MRS Advances*, **2016**, 1, 621-630	0.7	
49	Effect of solvent polarization on electroosmotic transport in a nanofluidic channel. *Microfluidics and Nanofluidics*, **2016**, 20, 1	2.8	3
48	Electric double layer electrostatics of pH-responsive spherical polyelectrolyte brushes in the decoupled regime. *Colloids and Surfaces B: Biointerfaces*, **2016**, 147, 180-190	6	4
47	Streaming potential and electroviscous effects in soft nanochannels beyond Debye-H□kel linearization. *Journal of Colloid and Interface Science*, **2015**, 445, 357-363	9.3	72
46	Scaling Laws and Ionic Current Inversion in Polyelectrolyte-Grafted Nanochannels. *Journal of Physical Chemistry B*, **2015**, 119, 12714-26	3.4	18
45	Electroosmotic transport in polyelectrolyte-grafted nanochannels with pH-dependent charge density. *Journal of Applied Physics*, **2015**, 117, 185304	2.5	49
44	Polyelectrolyte brushes: theory, modelling, synthesis and applications. *Soft Matter*, **2015**, 11, 8550-83	3.6	106
43	Mapping and Quantifying Surface Charges on Clay Nanoparticles. *Langmuir*, **2015**, 31, 10469-76	4	25
42	Conditions for spontaneous oil□water separation with oil□water separators. *RSC Advances*, **2015**, 5, 80184-80191	3.7	2
41	Electrostatics of soft charged interfaces with pH-dependent charge density: effect of consideration of appropriate hydrogen ion concentration distribution. *RSC Advances*, **2015**, 5, 4493-4501	3.7	27
40	Bacterial floc mediated rapid streamer formation in creeping flows. *Scientific Reports*, **2015**, 5, 13070	4.9	30
39	Effect of finite ion sizes in electric double layer mediated interaction force between two soft charged plates. *RSC Advances*, **2015**, 5, 46873-46880	3.7	22
38	Electrostatic potential distribution of a soft spherical particle with a charged core and pH-dependent charge density. *Colloids and Surfaces B: Biointerfaces*, **2015**, 127, 143-7	6	26
37	Effect of finite ion sizes in an electrostatic potential distribution for a charged soft surface in contact with an electrolyte solution. *Physical Review E*, **2014**, 89, 012307	2.4	31
36	Filling of charged cylindrical capillaries. *Physical Review E*, **2014**, 90, 043011	2.4	25
35	Streaming potential and electroviscous effects in soft nanochannels: towards designing more efficient nanofluidic electrochemomechanical energy converters. *Soft Matter*, **2014**, 10, 7558-68	3.6	101

34	Formation and post-formation dynamics of bacterial biofilm streamers as highly viscous liquid jets. *Scientific Reports*, **2014**, 4, 7126	4.9	23
33	Electric double-layer interactions in a wedge geometry: change in contact angle for drops and bubbles. *Physical Review E*, **2013**, 88, 033021	2.4	16
32	Exploring new scaling regimes for streaming potential and electroviscous effects in a nanocapillary with overlapping electric double layers. *Analytica Chimica Acta*, **2013**, 804, 159-66	6.6	66
31	Contribution of interfacial electrostriction in surface tension. *Journal of Colloid and Interface Science*, **2013**, 400, 130-4	9.3	2
30	Different regimes in vertical capillary filling. *Physical Review E*, **2013**, 87, 063005	2.4	42
29	Drop deposition on under-liquid low energy surfaces. *Soft Matter*, **2013**, 9, 7437	3.6	15
28	Electric double layer force between charged surfaces: effect of solvent polarization. *Journal of Chemical Physics*, **2013**, 138, 114703	3.9	36
27	Contact angles on a soft solid: from Young's law to Neumann's law. *Physical Review Letters*, **2012**, 109, 236101	7.4	126
26	Dynamics of liquid droplets in an evaporating drop: liquid droplet □offee stain□effect. *RSC Advances*, **2012**, 2, 8390	3.7	19
25	Magnetohydrodynamics in narrow fluidic channels in presence of spatially non-uniform magnetic fields: framework for combined magnetohydrodynamic and magnetophoretic particle transport. *Microfluidics and Nanofluidics*, **2012**, 13, 799-807	2.8	36
24	Concentration polarization in translocation of DNA through nanopores and nanochannels. *Physical Review Letters*, **2012**, 108, 138101	7.4	40
23	Capillary pressure and contact line force on a soft solid. *Physical Review Letters*, **2012**, 108, 094301	7.4	83
22	Early regimes of capillary filling. *Physical Review E*, **2012**, 86, 067301	2.4	53
21	Redefining electrical double layer thickness in narrow confinements: effect of solvent polarization. *Physical Review E*, **2012**, 85, 051508	2.4	46
20	Wenzel and Cassie-Baxter states of an electrolytic drop on charged surfaces. *Physical Review E*, **2012**, 86, 011603	2.4	19
19	Ring stains in the presence of electromagnetohydrodynamic interactions. *Physical Review E*, **2012**, 86, 056317	2.4	11
18	Electric-double-layer potential distribution in multiple-layer immiscible electrolytes: effect of finite ion sizes. *Physical Review E*, **2012**, 85, 012502	2.4	13
17	Ring stains in the presence of electrokinetic interactions. *Physical Review E*, **2012**, 85, 046311	2.4	22

16	Steric-effect-induced enhancement of electrical-double-layer overlapping phenomena. *Physical Review E*, **2011**, 84, 012501	2.4	51
15	Elastic deformation due to tangential capillary forces. *Physics of Fluids*, **2011**, 23, 072006	4.4	71
14	Effect of impurities in the description of surface nanobubbles: role of nonidealities in the surface layer. *Physical Review E*, **2011**, 83, 066315	2.4	14
13	Elastocapillary instability under partial wetting conditions: bending versus buckling. *Physical Review E*, **2011**, 84, 061601	2.4	11
12	Electric-double-layer potential distribution in multiple-layer immiscible electrolytes. *Physical Review E*, **2011**, 84, 022502	2.4	6
11	Effect of added salt on preformed surface nanobubbles: a scaling estimate. *Physical Review E*, **2011**, 84, 036303	2.4	14
10	Effect of confinement on the collapsing mechanism of a flexible polymer chain. *Journal of Chemical Physics*, **2010**, 133, 174904	3.9	13
9	Effect of conductivity variations within the electric double layer on the streaming potential estimation in narrow fluidic confinements. *Langmuir*, **2010**, 26, 11589-96	4	62
8	Effect of impurities in description of surface nanobubbles. *Physical Review E*, **2010**, 82, 056310	2.4	34
7	Influences of streaming potential on cross stream migration of flexible polymer molecules in nanochannel flows. *Journal of Chemical Physics*, **2009**, 130, 244904	3.9	21
6	Influence of streaming potential on the transport and separation of charged spherical solutes in nanochannels subjected to particle-wall interactions. *Langmuir*, **2009**, 25, 9863-72	4	27
5	Transport and separation of charged macromolecules under nonlinear electromigration in nanochannels. *Langmuir*, **2008**, 24, 7704-10	4	14
4	Streaming-field-induced convective transport and its influence on the electroviscous effects in narrow fluidic confinement beyond the Debye-H□kel limit. *Physical Review E*, **2008**, 77, 037303	2.4	78
3	Analytical investigations on the effects of substrate kinetics on macromolecular transport and hybridization through microfluidic channels. *Colloids and Surfaces B: Biointerfaces*, **2007**, 58, 203-17	6	17
2	Physically Soft Magnetic Films and Devices: Fabrication, Properties, Printability, and Applications. *Journal of Materials Chemistry C*,	7.1	0
1	Interplay of Local Heating, Nanoconfinement, and Tunable Liquid□Wall Interactions Drive Rapid Imbibition and Pronounced Mixing Between Two Immiscible Liquids. *Journal of Physical Chemistry Letters*,5137-5142	6.4	