

JiÅÃ- MÃ;lek

List of Publications by Year in descending order

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134
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126907

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135
docs citations

135
times ranked

2477
citing authors

#	ARTICLE	IF	CITATIONS
1	The kinetic analysis of non-isothermal data. <i>Thermochimica Acta</i> , 1992, 200, 257-269.	2.7	728
2	Kinetic Analysis of Solid-State Reactions: The Universality of Master Plots for Analyzing Isothermal and Nonisothermal Experiments. <i>Journal of Physical Chemistry A</i> , 2000, 104, 10777-10782.	2.5	519
3	The applicability of Johnson-Mehl-Avrami model in the thermal analysis of the crystallization kinetics of glasses. <i>Thermochimica Acta</i> , 1995, 267, 61-73.	2.7	427
4	A computer program for kinetic analysis of non-isothermal thermoanalytical data. <i>Thermochimica Acta</i> , 1989, 138, 337-346.	2.7	201
5	A kinetic analysis of the curing reaction of an epoxy resin. <i>Thermochimica Acta</i> , 1993, 228, 47-60.	2.7	169
6	Applicability of Fraser-Suzuki function in kinetic analysis of complex crystallization processes. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 111, 1045-1056.	3.6	129
7	Interpretation of crystallization kinetics results provided by DSC. <i>Thermochimica Acta</i> , 2011, 526, 237-251.	2.7	93
8	Distortion of the Arrhenius parameters by the inappropriate kinetic model function. <i>Thermochimica Acta</i> , 1991, 188, 333-336.	2.7	92
9	Kinetic analysis of solid-state processes. <i>Journal of Materials Research</i> , 2001, 16, 1862-1871.	2.6	92
10	The boundary conditions for kinetic models. <i>Thermochimica Acta</i> , 1989, 153, 429-432.	2.7	82
11	Empirical kinetic models in thermal analysis. <i>Thermochimica Acta</i> , 1992, 203, 25-30.	2.7	74
12	The kinetic analysis of the crystallization processes in glasses. <i>Thermochimica Acta</i> , 1991, 186, 153-169.	2.7	71
13	Volume and enthalpy relaxation of a-Se in the glass transition region. <i>Journal of Non-Crystalline Solids</i> , 2009, 355, 264-272.	3.1	71
14	Description of enthalpy relaxation dynamics in terms of TNM model. <i>Journal of Non-Crystalline Solids</i> , 2013, 378, 186-195.	3.1	61
15	Accommodation of the actual solid-state process in the kinetic model function. Part 2. Applicability of the empirical kinetic model function to diffusion-controlled reactions. <i>Thermochimica Acta</i> , 1996, 282-283, 69-80.	2.7	56
16	Is the original Kissinger equation obsolete today?. <i>Journal of Thermal Analysis and Calorimetry</i> , 2014, 115, 1961-1967.	3.6	56
17	The effect of crystal structure on the thermal reactivity of CL-20 and its C4 bonded explosives (I): thermodynamic properties and decomposition kinetics. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 112, 823-836.	3.6	54
18	Testing Method for the Johnson-Mehl-Avrami Equation in Kinetic Analysis of Crystallization Processes. <i>Journal of the American Ceramic Society</i> , 2000, 83, 2103-2105.	3.8	50

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19	Structural relaxation of polyvinyl acetate (PVAc). <i>Polymer</i> , 2008, 49, 3176-3185.	3.8	50
20	Viscosity of selenium melt. <i>Journal of Non-Crystalline Solids</i> , 2010, 356, 2803-2806.	3.1	49
21	Is the ÅestÅk-berggren equation a general expression of kinetic models?. <i>Thermochimica Acta</i> , 1991, 175, 305-309.	2.7	44
22	Extended study of crystallization kinetics for Seâ€Te glasses. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 111, 161-171.	3.6	44
23	A simple method of kinetic model discrimination. Part 1. Analysis of differential non-isothermal data. <i>Thermochimica Acta</i> , 1994, 236, 187-197.	2.7	43
24	Structural relaxation of As ₂ Se ₃ glass and viscosity of supercooled liquid. <i>Journal of Non-Crystalline Solids</i> , 2005, 351, 3458-3467.	3.1	43
25	Crystallization kinetics of a-Se. <i>Journal of Thermal Analysis and Calorimetry</i> , 2014, 115, 81-91.	3.6	43
26	Crystallization kinetics of amorphous Se. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 114, 473-482.	3.6	41
27	Relaxation behavior of glassy selenium. <i>Journal of Physics and Chemistry of Solids</i> , 2007, 68, 850-854.	4.0	40
28	Enthalpic structural relaxation in Te-Se glassy system. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 2163-2169.	3.1	39
29	Thermal behavior in Se-Te chalcogenide system: Interplay of thermodynamics and kinetics. <i>Journal of Chemical Physics</i> , 2014, 141, 224507.	3.0	37
30	Volume and Enthalpy Relaxation Rate in Glassy Materials. <i>Macromolecules</i> , 1998, 31, 8312-8322.	4.8	36
31	Crystallization kinetics in Seâ€Te glassy system. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 3123-3129.	3.1	34
32	Particle size influence on crystallization behavior of Ge ₂ Sb ₂ Se ₅ glass. <i>Journal of Non-Crystalline Solids</i> , 2012, 358, 276-284.	3.1	34
33	The effect of polymer matrices on the thermal hazard properties of RDX-based PBXs by using model-free and combined kinetic analysis. <i>Journal of Hazardous Materials</i> , 2014, 271, 185-195.	12.4	34
34	The effect of crystal structure on the thermal reactivity of CL-20 and its C4-bonded explosives. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 112, 837-849.	3.6	33
35	Enthalpy relaxation in Geâ€Se glassy system. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 113, 831-842.	3.6	31
36	Non-isothermal crystallization kinetics of As ₂ Se ₃ glass studied by DSC. <i>Thermochimica Acta</i> , 2014, 579, 56-63.	2.7	31

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37	Kissinger equation versus glass transition phenomenology. Journal of Thermal Analysis and Calorimetry, 2013, 114, 285-293.	3.6	30
38	Thermal characterization of Se-Te thin films. Journal of Alloys and Compounds, 2015, 644, 40-46.	5.5	29
39	Crystallization mechanisms occurring in the Se-Te glassy system. Journal of Thermal Analysis and Calorimetry, 2015, 119, 155-166.	3.6	28
40	The shape of a thermoanalytical curve and its kinetic information content. Thermochimica Acta, 1990, 164, 199-209.	2.7	27
41	Kinetics of crystal growth of germanium disulfide in Ge _{0.38} S _{0.62} chalcogenide glass. Journal of Non-Crystalline Solids, 2005, 351, 557-567.	3.1	27
42	Crystallization kinetics of a-Se. Journal of Thermal Analysis and Calorimetry, 2015, 119, 1363-1372.	3.6	27
43	Apparent activation energy of structural relaxation for Se ₇₀ Te ₃₀ glass. Journal of Non-Crystalline Solids, 2010, 356, 165-168.	3.1	26
44	Thermal behavior of Se-rich Ge ₂ Sb ₂ Se(5 \hat{y})Te \hat{y} chalcogenide system. Journal of Alloys and Compounds, 2015, 627, 287-298.	5.5	25
45	Crystal Growth Kinetics in Se-Te Bulk Glasses. Crystal Growth and Design, 2015, 15, 4287-4295.	3.0	25
46	A novel method to study crystallization of glasses. Thermochimica Acta, 2010, 511, 67-73.	2.7	23
47	Relaxation in Ge ₂ Se ₉₈ and As ₂ Se ₉₈ glasses. Journal of Non-Crystalline Solids, 2010, 356, 447-455.	3.1	23
48	Viscosity of chalcogenide glass-formers. International Materials Reviews, 2020, 65, 63-101.	19.3	23
49	The shape of thermoanalytical curves as a function of the reaction kinetics. Thermochimica Acta, 1993, 222, 105-113.	2.7	22
50	Viscosity of (GeS ₂) _x (Sb ₂ S ₃) _{1\hat{x}} supercooled melts. Journal of Non-Crystalline Solids, 2006, 352, 3952-3955.	3.1	21
51	Amorphous-to-crystalline transition in Te-doped Ge ₂ Sb ₂ Se ₅ glass. Journal of Thermal Analysis and Calorimetry, 2014, 117, 1073-1083.	3.6	21
52	Non-isothermal crystallization kinetics of GeTe ₄ infrared glass. Journal of Thermal Analysis and Calorimetry, 2016, 123, 195-204.	3.6	21
53	Limitations of the Augis and Bennett Method for Kinetic Analysis of the Crystallization of Glasses and Conditions for Correct Use. Journal of the American Ceramic Society, 2001, 84, 1797-1802.	3.8	20
54	Structural relaxation in Se-rich As-Te glasses. Journal of Non-Crystalline Solids, 2013, 363, 89-95.	3.1	20

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55	Class transition in polymers: (In)correct determination of activation energy. <i>Polymer</i> , 2013, 54, 1504-1511.	3.8	20
56	Crystallization behavior of GeSb ₂ Se ₄ chalcogenide glass. <i>Journal of Non-Crystalline Solids</i> , 2014, 388, 46-54.	3.1	19
57	Calorimetric and high-resolution transmission electron microscopy study of nanocrystallization in zirconia gel. <i>Journal of Materials Research</i> , 1999, 14, 1834-1843.	2.6	18
58	Kinetics of crystal growth of Sb ₂ S ₃ in (GeS ₂) _{0.3} (Sb ₂ S ₃) _{0.7} glass. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 2243-2253.	3.1	18
59	Viscosity of (GeSe ₂) _{1-x} (Sb ₂ Se ₃) _x undercooled melts. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 2803-2806.	3.1	18
60	Crystallization behavior of (GeS ₂) _{0.1} (Sb ₂ S ₃) _{0.9} glass. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 3354-3361.	3.1	18
61	Electrical conductivity and crystallization kinetics in Te-Se glassy system. <i>Journal of Applied Physics</i> , 2012, 111, .	2.5	18
62	Viscosity of Se-Te glass-forming system. <i>Pure and Applied Chemistry</i> , 2015, 87, 239-247.	1.9	18
63	Spherulitic Crystal Growth Velocity in Selenium Supercooled Liquid. <i>Crystal Growth and Design</i> , 2016, 16, 5811-5821.	3.0	18
64	Thermal properties and viscous flow behavior of As ₂ Se ₃ glass. <i>Journal of Alloys and Compounds</i> , 2016, 655, 220-228.	5.5	18
65	Kinetic fragility of Se-based binary chalcogenide glasses. <i>Journal of Non-Crystalline Solids</i> , 2015, 419, 39-44.	3.1	17
66	Amorphous-to-crystalline transition in Ge ₈ Sb _(2-x) Bi _x Te ₁₁ phase-change materials for data recording. <i>Journal of Alloys and Compounds</i> , 2016, 674, 63-72.	5.5	17
67	Enthalpic relaxation in Ge ₂ Sb ₂ Se ₅ glass. <i>Journal of Non-Crystalline Solids</i> , 2012, 358, 804-809.	3.1	16
68	The Ozawa's generalized time concept and YZ-master plots as a convenient tool for kinetic analysis of complex processes. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 113, 1437-1446.	3.6	16
69	Kinetic Processes in Amorphous Materials Revealed by Thermal Analysis: Application to Glassy Selenium. <i>Molecules</i> , 2019, 24, 2725.	3.8	16
70	Crystal growth kinetics in GeS ₂ amorphous thin films. <i>Journal of Thermal Analysis and Calorimetry</i> , 2014, 118, 775-781.	3.6	15
71	Evaluation of glass-stability criteria for chalcogenide glasses: Effect of experimental conditions. <i>Journal of Non-Crystalline Solids</i> , 2015, 413, 39-45.	3.1	14
72	Thermal behavior of Ge ₂₀ Se _y Te _{80-y} infrared glasses (for y up to 8 at.%). <i>Journal of Alloys and Compounds</i> , 2016, 680, 427-435.	5.5	14

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73	Electrical and optical properties of $\text{Ge}_{20}\text{Sb}_{15}\text{Bi}_x\text{Bi}_6\text{S}_{65}$ glasses. Journal of Materials Science, 1986, 21, 488-492.	3.7	13
74	Crystal growth kinetics in $(\text{GeS}_2)_{0.2}(\text{Sb}_2\text{S}_3)_{0.8}$ glass. Thermochemica Acta, 2006, 446, 121-127.	2.7	13
75	Crystallization kinetics of Se-Te thin films. Thin Solid Films, 2014, 571, 121-126.	1.8	13
76	Extended Study on Crystal Growth and Viscosity in Ge-Sb-Se Bulk Glasses and Thin Films. Journal of Physical Chemistry B, 2017, 121, 7978-7986.	2.6	13
77	Viscosity measurement by thermomechanical analyzer. Journal of Non-Crystalline Solids, 2018, 480, 118-122.	3.1	13
78	Crystallization behavior in $\text{Se}_{90}\text{Te}_{10}$ and $\text{Se}_{80}\text{Te}_{20}$ thin films. Journal of Applied Physics, 2014, 115, .	2.5	12
79	Importance of proper baseline identification for the subsequent kinetic analysis of derivative kinetic data. Journal of Thermal Analysis and Calorimetry, 2016, 124, 1717-1725.	3.6	12
80	Crystal growth in $(\text{GeS}_2)_x(\text{Sb}_2\text{S}_3)_{1-x}$ thin films. Journal of Non-Crystalline Solids, 2015, 410, 7-13.	3.1	11
81	Thermal behavior of Se-rich $\text{GeSb}_2\text{Se}_{(4-y)}\text{Te}_y$ (glassy) system. Journal of Alloys and Compounds, 2016, 670, 222-228.	5.5	11
82	Crystal Growth Velocity in As_2Se_3 Supercooled Liquid. Crystal Growth and Design, 2017, 17, 4990-4999.	3.0	11
83	Se-doped GeTe_4 glasses for far-infrared optical fibers. Journal of Alloys and Compounds, 2017, 695, 2434-2443.	5.5	11
84	Comparison of Lateral Crystal Growth in Selenium Thin Films and Surface of Bulk Samples. Crystal Growth and Design, 2018, 18, 4103-4110.	3.0	11
85	Influence of environment and grinding on the crystallisation mechanism of ZrO_2 gel. Journal of Physics and Chemistry of Solids, 2007, 68, 824-829.	4.0	10
86	Thermodynamic model and viscosity of Ge-S glasses. Journal of Thermal Analysis and Calorimetry, 2014, 116, 581-588.	3.6	10
87	The mechanisms for desensitization effect of synthetic polymers on BCHMX: Physical models and decomposition pathways. Journal of Hazardous Materials, 2015, 294, 145-157.	12.4	10
88	Crystal Growth Kinetics and Viscous Behavior in $\text{Ge}_2\text{Sb}_2\text{Se}_5$ Undercooled Melt. Journal of Physical Chemistry B, 2016, 120, 7998-8006.	2.6	10
89	Correlation of structural, thermo-kinetic and thermo-mechanical properties of the $\text{Ge}_{11}\text{Ga}_{11}\text{Te}_{78}$ glass. Journal of Non-Crystalline Solids, 2016, 445-446, 7-14.	3.1	10
90	Correlation between the structure and structural relaxation data for $(\text{GeSe}_2)_y(\text{Sb}_2\text{Se}_3)_{1-y}$ glasses. Journal of Non-Crystalline Solids, 2019, 505, 162-169.	3.1	10

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91	Dilatometric measurement of structural relaxation in Ge ₃₈ S ₆₂ glass. Journal of Non-Crystalline Solids, 1994, 172-174, 635-639.	3.1	9
92	Viscosity of Cu _x (As ₂ Se ₃) _{100-x} supercooled melts. Journal of Non-Crystalline Solids, 2005, 351, 3152-3155.	3.1	9
93	Crystallization in glasses monitored by thermomechanical analysis. Journal of Thermal Analysis and Calorimetry, 2011, 105, 565-570.	3.6	9
94	Crystal growth kinetics of Sb ₂ S ₃ in Ge-Sb-S amorphous thin films. Journal of Thermal Analysis and Calorimetry, 2012, 110, 275-280.	3.6	9
95	Crystallization kinetics of a-Se, part 4: thin films. Philosophical Magazine, 2014, 94, 3036-3051.	1.6	9
96	Crystallization behaviour of Ge ₁₇ Sb ₂₃ Se ₆₀ thin films. Philosophical Magazine, 2014, 94, 1301-1310.	1.6	9
97	Particle size dependent isothermal crystallization kinetics in a Se-Te glassy system. Thermochemica Acta, 2015, 610, 47-56.	2.7	9
98	Thermokinetic behaviour of Ag-doped (GeS ₂) ₅₀ (Sb ₂ S ₃) ₅₀ glasses. Journal of Non-Crystalline Solids, 2016, 449, 12-19.	3.1	9
99	Correlation between the structure and relaxation dynamics of (GeS ₂) _y (Sb ₂ S ₃) _{1-y} glassy matrices. Journal of Non-Crystalline Solids, 2018, 479, 113-119.	3.1	9
100	Influence of sample form and thermal history on relaxation response. Thermochemica Acta, 2010, 507-508, 71-76.	2.7	8
101	The crystallization kinetics of Sb ₂ S ₃ in (GeS ₂) _{0.4} (Sb ₂ S ₃) _{0.6} glass. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 3127-3130.	0.8	8
102	Nucleation in As ₂ Se ₃ glass studied by DSC. Thermochemica Acta, 2014, 593, 16-21.	2.7	8
103	Enthalpy relaxation kinetics of GeTe ₄ glass. Journal of Non-Crystalline Solids, 2015, 422, 51-56.	3.1	8
104	Analysis of crystal growth and viscosity in Ge-Sb-Se-Te undercooled melts. Journal of Non-Crystalline Solids, 2019, 505, 1-8.	3.1	8
105	Surface mobility in amorphous selenium and comparison with organic molecular glasses. Journal of Chemical Physics, 2021, 154, 074703.	3.0	8
106	The crystallization of Ge ₄₀ S ₆₀ glass. Thermochemica Acta, 1988, 129, 293-299.	2.7	7
107	Heat capacity and thermodynamic properties of germanium disulfide at temperatures from T=(2 to) T _j ETQq1 1 0.784314 rgBT /Overl	2.0	7
108	As ₂ Se ₃ melt crystallization studied by quadratic approximation of nucleation and growth rate temperature dependence. Journal of Thermal Analysis and Calorimetry, 2013, 114, 971-977.	3.6	7

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109	Nucleation and growth in amorphous (GeS ₂) _{0.9} (Sb ₂ S ₃) _{0.1} thin films. Journal of Crystal Growth, 2013, 382, 87-93.	1.5	7
110	Crystallization processes in Ge ₂ Sb ₂ Se ₄ Te glass. Materials Research Bulletin, 2015, 61, 207-214.	5.2	7
111	Structural interpretation of the enthalpy relaxation kinetics of (GeTe ₄) _y (GaTe ₃) _{1-^y} far-infrared glasses. Journal of Non-Crystalline Solids, 2016, 447, 110-116.	3.1	7
112	How nucleation-growth kinetics is influenced by initial degree of material crystallinity. Thermochimica Acta, 2016, 631, 28-35.	2.7	7
113	Combined dilatometric and calorimetric study of kinetic processes occurring in Ge ₂₀ Te ₇₆ Se ₄ infrared bulk glass. Journal of Non-Crystalline Solids, 2016, 432, 493-498.	3.1	7
114	Crystal growth in Se ₇₀ Te ₃₀ thin films followed by SEM and <i>in situ</i> XRD. Journal of Applied Physics, 2016, 120, .	2.5	6
115	Influence of particle size on crystallization and relaxation behavior of Ge ₂₀ Se ₄ Te ₇₆ glass for infrared optics. Journal of Non-Crystalline Solids, 2016, 433, 75-81.	3.1	6
116	Analysis of viscosity data in As ₂ Se ₃ , Se and Se ₉₅ Te ₅ chalcogenide melts using the pressure assisted melt filling technique. Journal of Non-Crystalline Solids, 2019, 511, 100-108.	3.1	6
117	Thermal Properties and Thermal Analysis: Fundamentals, Experimental Techniques and Applications. Springer Handbooks, 2017, , 1-1.	0.6	6
118	Crystal growth in Ge-Sb-Se glass and its relation to viscosity and surface diffusion. Journal of Non-Crystalline Solids, 2021, 566, 120865.	3.1	5
119	Viscosity and fragility of selected glass-forming chalcogenides. Journal of Non-Crystalline Solids, 2022, 575, 121205.	3.1	5
120	The effect of partial crystallinity on Se ₇₀ Te ₃₀ crystallization kinetics. Journal of Thermal Analysis and Calorimetry, 2016, 125, 447-458.	3.6	4
121	The effect of material aging on crystallization kinetics of Se ₇₀ Te ₃₀ glass. Thermochimica Acta, 2016, 638, 25-34.	2.7	4
122	The effect of Se-Te substitution on crystallisation micro-mechanisms evincing in GeTe ₄ glass. Journal of Thermal Analysis and Calorimetry, 2016, 123, 205-219.	3.6	4
123	Enthalpy relaxation kinetics of Ge ₂₀ Te _(80-y) Se _y far-infrared glasses in the glass transition range. Philosophical Magazine, 2016, 96, 1623-1631.	1.6	4
124	Crystal Growth Kinetics in Ge ₂ Glass and Viscosity of Supercooled Liquid. Journal of Physical Chemistry B, 2021, 125, 7515-7526.	2.6	4
125	Combination of indirect and direct approaches to the description of complex crystallization behavior in GeSe ₂ -rich region of pseudobinary GeSe ₂ -Sb ₂ Se ₃ system. Journal of Non-Crystalline Solids, 2021, 568, 120968.	3.1	4
126	Study of nucleation in a Se ₉₀ Te ₁₀ chalcogenide glass by microscopy and differential scanning calorimetry. Journal of Materials Science, 2015, 50, 3854-3859.	3.7	3

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127	Thermal characterization of (As ₂ Se ₃) _{0.5} (As ₂ Te ₃) _{0.5} infrared glass. Journal of Non-Crystalline Solids, 2017, 475, 121-128.	3.1	3
128	Transient Nucleation in Geâ€“Sbâ€“S Thin Films. Crystal Growth and Design, 2018, 18, 4562-4570.	3.0	2
129	Crystallization Kinetics in Amorphous and Glassy Materials. Hot Topics in Thermal Analysis and Calorimetry, 2012, , 291-324.	0.5	1
130	A fast scanning calorimetry study of nucleation in a Se ₉₀ Te ₁₀ glass. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2019, 249, 114425.	3.5	1
131	Viscosity Measurements Applied to Chalcogenide Glass-Forming Systems. Hot Topics in Thermal Analysis and Calorimetry, 2011, , 165-178.	0.5	0
132	Structural Relaxation and Viscosity Behavior in Supercooled Liquids at the Glass Transition. Hot Topics in Thermal Analysis and Calorimetry, 2012, , 147-173.	0.5	0
133	Thermal Behavior of Chalcogenide Glasses. Handbook of Thermal Analysis and Calorimetry, 2018, , 487-517.	1.6	0
134	Thermo-kinetic Phenomena Occurring in Glasses: Their Formalism and Mutual Relationships. Hot Topics in Thermal Analysis and Calorimetry, 2017, , 237-256.	0.5	0