

Claes Fransson

List of Publications by Year in descending order

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132
papers

9,559
citations

23567

58
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38395

95
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132
all docs

132
docs citations

132
times ranked

4218
citing authors

#	ARTICLE	IF	CITATIONS
1	Design concepts for the Cherenkov Telescope Array CTA: an advanced facility for ground-based high-energy gamma-ray astronomy. <i>Experimental Astronomy</i> , 2011, 32, 193-316.	3.7	640
2	Emission from circumstellar interaction in normal Type II supernovae. <i>Astrophysical Journal</i> , 1994, 420, 268.	4.5	402
3	A relativistic type Ibc supernova without a detected $\hat{\text{I}}^3$ -ray burst. <i>Nature</i> , 2010, 463, 513-515.	27.8	275
4	Circumstellar Emission from Type Ib and Ic Supernovae. <i>Astrophysical Journal</i> , 2006, 651, 381-391.	4.5	241
5	Confined dense circumstellar material surrounding a regular type II supernova. <i>Nature Physics</i> , 2017, 13, 510-517.	16.7	221
6	Circumstellar Interaction in SN 1993J. <i>Astrophysical Journal</i> , 1996, 461, 993.	4.5	221
7	A PANCHROMATIC VIEW OF THE RESTLESS SN 2009ip REVEALS THE EXPLOSIVE EJECTION OF A MASSIVE STAR ENVELOPE. <i>Astrophysical Journal</i> , 2014, 780, 21.	4.5	182
8	SN 1992A: Ultraviolet and Optical Studies Based on HST, IUE, and CTIO Observations. <i>Astrophysical Journal</i> , 1993, 415, 589.	4.5	173
9	DUST PRODUCTION AND PARTICLE ACCELERATION IN SUPERNOVA 1987A REVEALED WITH ALMA. <i>Astrophysical Journal Letters</i> , 2014, 782, L2.	8.3	170
10	Late emission from supernovae - A window on stellar nucleosynthesis. <i>Astrophysical Journal</i> , 1989, 343, 323.	4.5	163
11	HIGH-DENSITY CIRCUMSTELLAR INTERACTION IN THE LUMINOUS TYPE II _n SN 2010jl: THE FIRST 1100 DAYS. <i>Astrophysical Journal</i> , 2014, 797, 118.	4.5	159
12	EVLA OBSERVATIONS CONSTRAIN THE ENVIRONMENT AND PROGENITOR SYSTEM OF Type Ia SUPERNOVA 2011fe. <i>Astrophysical Journal</i> , 2012, 750, 164.	4.5	154
13	DUST AND THE TYPE II-PLATEAU SUPERNOVA 2004et. <i>Astrophysical Journal</i> , 2009, 704, 306-323.	4.5	151
14	A STUBBORNLY LARGE MASS OF COLD DUST IN THE EJECTA OF SUPERNOVA 1987A. <i>Astrophysical Journal</i> , 2015, 800, 50.	4.5	148
15	Narrow ultraviolet emission lines from SN 1987A - Evidence for CNO processing in the progenitor. <i>Astrophysical Journal</i> , 1989, 336, 429.	4.5	145
16	The Axisymmetric Ejecta of Supernova 1987A. <i>Astrophysical Journal</i> , 2002, 579, 671-677.	4.5	144
17	Early and late time VLT spectroscopy of SN 2001el - progenitor constraints for a type Ia supernova. <i>Astronomy and Astrophysics</i> , 2005, 443, 649-662.	5.1	136
18	Radio Emission and Particle Acceleration in SN 1993J. <i>Astrophysical Journal</i> , 1998, 509, 861-878.	4.5	135

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19	The progenitor mass of the Type IIP supernova SN ^{2004et} from late-time spectral modeling. <i>Astronomy and Astrophysics</i> , 2012, 546, A28.	5.1	135
20	The ⁴⁴ Ti-powered spectrum of SN 1987A. <i>Astronomy and Astrophysics</i> , 2011, 530, A45.	5.1	134
21	MULTI-WAVELENGTH OBSERVATIONS OF THE ENDURING TYPE II _n SUPERNOVAE 2005ip AND 2006jd. <i>Astrophysical Journal</i> , 2012, 756, 173.	4.5	131
22	The nebular spectra of SN 2012aw and constraints on stellar nucleosynthesis from oxygen emission lines. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 439, 3694-3703.	4.4	117
23	Optical and Ultraviolet Spectroscopy of SN 1995N: Evidence for Strong Circumstellar Interaction. <i>Astrophysical Journal</i> , 2002, 572, 350-370.	4.5	116
24	A dust-enshrouded tidal disruption event with a resolved radio jet in a galaxy merger. <i>Science</i> , 2018, 361, 482-485.	12.6	113
25	The Line Emission from the Circumstellar Gas around SN 1987A. <i>Astrophysical Journal</i> , 1996, 464, 924.	4.5	113
26	Late-time spectral line formation in Type II _b supernovae, with application to SN 1993J, SN 2008ax, and SN 2011dh. <i>Astronomy and Astrophysics</i> , 2015, 573, A12.	5.1	111
27	Pulsar nebulae in supernovae. <i>Astrophysical Journal</i> , 1992, 395, 540.	4.5	106
28	METAMORPHOSIS OF SN 2014C: DELAYED INTERACTION BETWEEN A HYDROGEN POOR CORE-COLLAPSE SUPERNOVA AND A NEARBY CIRCUMSTELLAR SHELL. <i>Astrophysical Journal</i> , 2015, 815, 120.	4.5	105
29	X ^{ray} , Optical, and Radio Observations of the Type II Supernovae 1999em and 1998S. <i>Astrophysical Journal</i> , 2002, 572, 932-943.	4.5	102
30	Late Spectral Evolution of SN 1987A. II. Line Emission. <i>Astrophysical Journal</i> , 1998, 497, 431-457.	4.5	99
31	INVERSE COMPTON X-RAY EMISSION FROM SUPERNOVAE WITH COMPACT PROGENITORS: APPLICATION TO SN2011fe. <i>Astrophysical Journal</i> , 2012, 751, 134.	4.5	99
32	Gamma-ray deposition and nonthermal excitation in supernovae. <i>Astrophysical Journal</i> , 1992, 390, 602.	4.5	99
33	A DEEP SEARCH FOR PROMPT RADIO EMISSION FROM THERMONUCLEAR SUPERNOVAE WITH THE VERY LARGE ARRAY. <i>Astrophysical Journal</i> , 2016, 821, 119.	4.5	95
34	Three-dimensional modeling of type Ia supernovae – The power of late time spectra. <i>Astronomy and Astrophysics</i> , 2005, 437, 983-995.	5.1	94
35	The normal Type Ia SN ^{2003hv} out to very late phases. <i>Astronomy and Astrophysics</i> , 2009, 505, 265-279.	5.1	93
36	Optical and near-infrared observations of SN 2011dh – The first 100 days. <i>Astronomy and Astrophysics</i> , 2014, 562, A17.	5.1	93

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37	UNCOVERING THE PUTATIVE B-STAR BINARY COMPANION OF THE SN 1993J PROGENITOR. <i>Astrophysical Journal</i> , 2014, 790, 17.	4.5	88
38	The Remnant of Supernova 1987A. <i>Annual Review of Astronomy and Astrophysics</i> , 2016, 54, 19-52.	24.3	88
39	Hubble Space Telescope and Ground-based Observations of SN 1993J and SN 1998S: CNO Processing in the Progenitors. <i>Astrophysical Journal</i> , 2005, 622, 991-1007.	4.5	86
40	A hot and fast ultra-stripped supernova that likely formed a compact neutron star binary. <i>Science</i> , 2018, 362, 201-206.	12.6	84
41	Late Spectral Evolution of SN 1987A. I. Temperature and Ionization. <i>Astrophysical Journal</i> , 1998, 496, 946-966.	4.5	83
42	The freeze-out phase of SN 1987A - Implications for the light curve. <i>Astrophysical Journal</i> , 1993, 408, L25.	4.5	81
43	X-RAY AND RADIO EMISSION FROM TYPE II _n SUPERNOVA SN 2010jl. <i>Astrophysical Journal</i> , 2015, 810, 32.	4.5	76
44	CONSTRAINTS ON THE PROGENITOR SYSTEM AND THE ENVIRONS OF SN 2014J FROM DEEP RADIO OBSERVATIONS. <i>Astrophysical Journal</i> , 2014, 792, 38.	4.5	75
45	The Type II _b SN 2011dh: Two years of observations and modelling of the lightcurves. <i>Astronomy and Astrophysics</i> , 2015, 580, A142.	5.1	74
46	The late-time light curve of the type Ia supernova 2000cx. <i>Astronomy and Astrophysics</i> , 2004, 428, 555-568.	5.1	73
47	High Angular Resolution ALMA Images of Dust and Molecules in the SN 1987A Ejecta. <i>Astrophysical Journal</i> , 2019, 886, 51.	4.5	71
48	RADIO AND X-RAY OBSERVATIONS OF SN 2006jd: ANOTHER STRONGLY INTERACTING TYPE II _n SUPERNOVA. <i>Astrophysical Journal</i> , 2012, 755, 110.	4.5	70
49	PS1-14bj: A HYDROGEN-POOR SUPERLUMINOUS SUPERNOVA WITH A LONG RISE AND SLOW DECAY. <i>Astrophysical Journal</i> , 2016, 831, 144.	4.5	68
50	No trace of a single-degenerate companion in late spectra of supernovae 2011fe and 2014j. <i>Astronomy and Astrophysics</i> , 2015, 577, A39.	5.1	67
51	Late emission from SN 1987A. <i>Astrophysical Journal</i> , 1987, 322, L15.	4.5	66
52	X-ray illumination of the ejecta of supernova 1987A. <i>Nature</i> , 2011, 474, 484-486.	27.8	64
53	MULTI-WAVELENGTH OBSERVATIONS OF SUPERNOVA 2011ei: TIME-DEPENDENT CLASSIFICATION OF TYPE II _b AND Ib SUPERNOVAE AND IMPLICATIONS FOR THEIR PROGENITORS. <i>Astrophysical Journal</i> , 2013, 767, 71.	4.5	64
54	The peculiar Type Ia supernova iPTF14atg: Chandrasekhar-mass explosion or violent merger?. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 459, 4428-4439.	4.4	63

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55	INTERACTION-POWERED SUPERNOVAE: RISE-TIME VERSUS PEAK-LUMINOSITY CORRELATION AND THE SHOCK-BREAKOUT VELOCITY. <i>Astrophysical Journal</i> , 2014, 788, 154.	4.5	62
56	Hydrogen and helium in the spectra of Type Ia supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 435, 329-345.	4.4	61
57	SN 2009kn - the twin of the Type II _n supernova 1994W. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 424, 855-873.	4.4	60
58	Late-Time Optical and Ultraviolet Spectra of SN 1979C and SN 1980K. <i>Astronomical Journal</i> , 1999, 117, 725-735.	4.7	59
59	ABUNDANCES AND DENSITY STRUCTURE OF THE INNER CIRCUMSTELLAR RING AROUND SN 1987A. <i>Astrophysical Journal</i> , 2010, 717, 1140-1156.	4.5	59
60	The 3-D structure of SN 1987A's inner ejecta. <i>Astronomy and Astrophysics</i> , 2010, 517, A51.	5.1	59
61	RECONCILING THE INFRARED CATASTROPHE AND OBSERVATIONS OF SN 2011fe. <i>Astrophysical Journal Letters</i> , 2015, 814, L2.	8.3	57
62	Evidence for Late-stage Eruptive Mass Loss in the Progenitor to SN2018gcp, a Broad-lined Ic Supernova: Pre-explosion Emission and a Rapidly Rising Luminous Transient. <i>Astrophysical Journal</i> , 2019, 887, 169.	4.5	55
63	Modeling the Hubble Space Telescope Ultraviolet and Optical Spectrum of Spot 1 on the Circumstellar Ring of SN 1987A. <i>Astrophysical Journal</i> , 2002, 572, 906-931.	4.5	54
64	Metallicity at the explosion sites of interacting transients. <i>Astronomy and Astrophysics</i> , 2015, 580, A131.	5.1	53
65	Thermal and Non-thermal Emission from Circumstellar Interaction. , 2017, , 875-937.		53
66	Radioactivities and nucleosynthesis in SN 1987A. <i>New Astronomy Reviews</i> , 2002, 46, 487-492.	12.8	52
67	Constraining the physical properties of Type II-Plateau supernovae using nebular phase spectra. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 420, 3451-3468.	4.4	51
68	Supersolar Ni/Fe production in the Type IIP SN 2012ec. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 448, 2482-2494.	4.4	51
69	THE DESTRUCTION OF THE CIRCUMSTELLAR RING OF SN 1987A. <i>Astrophysical Journal Letters</i> , 2015, 806, L19.	8.3	51
70	X-ray emission from radiative shocks in type II _n supernovae. <i>Astronomy and Astrophysics</i> , 2006, 449, 171-192.	5.1	51
71	SPECTRAL AND MORPHOLOGICAL ANALYSIS OF THE REMNANT OF SUPERNOVA 1987A WITH ALMA AND ATCA. <i>Astrophysical Journal</i> , 2014, 796, 82.	4.5	49
72	Limits from the Hubble Space Telescope on a Point Source in SN 1987A. <i>Astrophysical Journal</i> , 2005, 629, 944-959.	4.5	48

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73	THREE-DIMENSIONAL DISTRIBUTION OF EJECTA IN SUPERNOVA 1987A AT 10,000 DAYS. <i>Astrophysical Journal</i> , 2016, 833, 147.	4.5	48
74	A WC/WO star exploding within an expanding carbon-oxygen-neon nebula. <i>Nature</i> , 2022, 601, 201-204.	27.8	48
75	PROGENITORS OF TYPE IIb SUPERNOVAE IN THE LIGHT OF RADIO AND X-RAYS FROM SN 2013df. <i>Astrophysical Journal</i> , 2016, 818, 111.	4.5	47
76	STRONG EVOLUTION OF X-RAY ABSORPTION IN THE TYPE II _n SUPERNOVA SN 2010jl. <i>Astrophysical Journal Letters</i> , 2012, 750, L2.	8.3	45
77	THE MORPHOLOGY OF THE EJECTA IN SUPERNOVA 1987A: A STUDY OVER TIME AND WAVELENGTH. <i>Astrophysical Journal</i> , 2013, 768, 89.	4.5	45
78	Hubble Space Telescope Observations of High-Velocity Ly α and H β Emission from Supernova Remnant 1987A: The Structure and Development of the Reverse Shock. <i>Astrophysical Journal</i> , 2003, 593, 809-830.	4.5	44
79	A MISSING-LINK IN THE SUPERNOVA-GRB CONNECTION: THE CASE OF SN 2012ap. <i>Astrophysical Journal</i> , 2015, 805, 187.	4.5	43
80	LATE SPECTRAL EVOLUTION OF THE EJECTA AND REVERSE SHOCK IN SN 1987A. <i>Astrophysical Journal</i> , 2013, 768, 88.	4.5	39
81	PTF13efv: AN OUTBURST 500 DAYS PRIOR TO THE SNHUNT 275 EXPLOSION AND ITS RADIATIVE EFFICIENCY. <i>Astrophysical Journal</i> , 2016, 824, 6.	4.5	39
82	Long-rising Type II supernovae from Palomar Transient Factory and Caltech Core-Collapse Project. <i>Astronomy and Astrophysics</i> , 2016, 588, A5.	5.1	39
83	Very Deep inside the SN 1987A Core Ejecta: Molecular Structures Seen in 3D. <i>Astrophysical Journal Letters</i> , 2017, 842, L24.	8.3	39
84	A UV resonance line echo from a shell around a hydrogen-poor superluminous supernova. <i>Nature Astronomy</i> , 2018, 2, 887-895.	10.1	39
85	Time evolution of the line emission from the inner circumstellar ring of SN 1987A and its hot spots. <i>Astronomy and Astrophysics</i> , 2008, 492, 481-491.	5.1	36
86	CARBON MONOXIDE IN THE COLD DEBRIS OF SUPERNOVA 1987A. <i>Astrophysical Journal Letters</i> , 2013, 773, L34.	8.3	36
87	ALMA spectral survey of Supernova 1987A - molecular inventory, chemistry, dynamics and explosive nucleosynthesis. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, 3347-3362.	4.4	36
88	<i>HST</i> -COS OBSERVATIONS OF HYDROGEN, HELIUM, CARBON, AND NITROGEN EMISSION FROM THE SN 1987A REVERSE SHOCK. <i>Astrophysical Journal</i> , 2011, 743, 186.	4.5	35
89	CONSTRAINTS ON EXPLOSIVE SILICON BURNING IN CORE-COLLAPSE SUPERNOVAE FROM MEASURED Ni/Fe RATIOS. <i>Astrophysical Journal</i> , 2015, 807, 110.	4.5	35
90	The 30 Year Search for the Compact Object in SN 1987A. <i>Astrophysical Journal</i> , 2018, 864, 174.	4.5	34

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91	A metallicity study of 1987A-like supernova host galaxies. <i>Astronomy and Astrophysics</i> , 2013, 558, A143.	5.1	31
92	Spectroscopy of the Type Ia supernova 2011fe past 1000 d. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2015, 448, L48-L52.	3.3	31
93	New [ITAL]Hubble Space Telescope[/ITAL] Observations of High-Velocity L[CLC]y[/CLC]± and H± in SNR 1987A. <i>Astrophysical Journal</i> , 1998, 509, L117-L120.	4.5	31
94	Observing Supernova 1987A with the Refurbished Hubble Space Telescope. <i>Science</i> , 2010, 329, 1624-1627.	12.6	30
95	Extremely late photometry of the nearby SN 2011fe. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 472, 2534-2542.	4.4	30
96	Hubble Space Telescope Spectroscopic Observations of the Ejecta of SN 1987A at 2000 Days. <i>Astrophysical Journal</i> , 1996, 466, 998.	4.5	30
97	The long-lived Type II _n SN 2015da: Infrared echoes and strong interaction within an extended massive shell. <i>Astronomy and Astrophysics</i> , 2020, 635, A39.	5.1	29
98	SN 2017dio: A Type-Ic Supernova Exploding in a Hydrogen-rich Circumstellar Medium^{âˆ—}. <i>Astrophysical Journal Letters</i> , 2018, 854, L14.	8.3	28
99	Evolution of the Reverse Shock Emission from SNR 1987A. <i>Astrophysical Journal</i> , 2006, 644, 959-970.	4.5	27
100	High resolution spectroscopy of the inner ring of SN 1987A. <i>Astronomy and Astrophysics</i> , 2008, 479, 761-777.	5.1	26
101	DISCOVERY OF MOLECULAR HYDROGEN IN SN 1987A. <i>Astrophysical Journal Letters</i> , 2016, 821, L5.	8.3	26
102	Late-time observations of the extraordinary Type II supernova iPTF14hls. <i>Astronomy and Astrophysics</i> , 2019, 621, A30.	5.1	26
103	Four (Super)luminous Supernovae from the First Months of the ZTF Survey. <i>Astrophysical Journal</i> , 2020, 901, 61.	4.5	25
104	ISO/SWS observations of SN 1987A. <i>Astronomy and Astrophysics</i> , 2001, 374, 629-637.	5.1	22
105	The Matter Beyond the Ring: The Recent Evolution of SN 1987A Observed by the Hubble Space Telescope. <i>Astrophysical Journal</i> , 2019, 886, 147.	4.5	21
106	Properties of gamma-ray decay lines in 3D core-collapse supernova models, with application to SN 1987A and Cas A. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 494, 2471-2497.	4.4	21
107	SN 2012aa: A transient between Type Ibc core-collapse and superluminous supernovae. <i>Astronomy and Astrophysics</i> , 2016, 596, A67.	5.1	20
108	SNÂ2012dn from early to late times: O9dc-like supernovae reassessedâˆ—.... <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	19

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109	The Carnegie Supernova Project II. <i>Astronomy and Astrophysics</i> , 2020, 638, A92.	5.1	18
110	Two stripped envelope supernovae with circumstellar interaction. <i>Astronomy and Astrophysics</i> , 2020, 643, A79.	5.1	18
111	Supernova Interaction with a Dense Detached Shell in SN 2001em. <i>Astrophysical Journal</i> , 2020, 902, 55.	4.5	18
112	Helium-rich Superluminous Supernovae from the Zwicky Transient Facility. <i>Astrophysical Journal Letters</i> , 2020, 902, L8.	8.3	18
113	Freeze out, IR-Catastrophes, and Non-thermal Emission in SNe. , 1996, , 211-222.		15
114	The slow demise of the long-lived SN 2005ip. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 498, 517-531.	4.4	15
115	X-Ray and Gamma-Ray Emission from Core-collapse Supernovae: Comparison of Three-dimensional Neutrino-driven Explosions with SN 1987A. <i>Astrophysical Journal</i> , 2019, 882, 22.	4.5	14
116	The luminous and rapidly evolving SN 2018bcc. <i>Astronomy and Astrophysics</i> , 2021, 649, A163.	5.1	14
117	X-Ray Absorption in Young Core-collapse Supernova Remnants. <i>Astrophysical Journal</i> , 2018, 864, 175.	4.5	13
118	iPTF16abc and the population of Type Ia supernovae: comparing the photospheric, transitional, and nebular phases. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 480, 1445-1456.	4.4	13
119	Thermal Emission and Radioactive Lines, but No Pulsar, in the Broadband X-Ray Spectrum of Supernova 1987A. <i>Astrophysical Journal</i> , 2021, 916, 76.	4.5	13
120	Infrared integral field spectroscopy of SN 1987A. <i>Astronomy and Astrophysics</i> , 2007, 471, 617-624.	5.1	12
121	MAPPING HIGH-VELOCITY H AND Ly EMISSION FROM SUPERNOVA 1987A. <i>Astrophysical Journal Letters</i> , 2015, 801, L16.	8.3	12
122	A Three-dimensional View of Molecular Hydrogen in SN 1987A. <i>Astrophysical Journal</i> , 2019, 873, 15.	4.5	9
123	Clumps and Rings of Ejecta in SNR 0540 as Seen in 3D. <i>Astrophysical Journal</i> , 2021, 922, 265.	4.5	8
124	The morphology of the ejecta of SN 1987A at 31 yr from 1150 to 10 ⁴ Å. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 511, 2977-2993.	4.4	7
125	A Six-year Image-subtraction Light Curve of SN 2010jl. <i>Publications of the Astronomical Society of the Pacific</i> , 2019, 131, 054204.	3.1	1
126	Modeling the Radio and X-ray Emission of SN 1993j and SN 2002ap. <i>International Astronomical Union Colloquium</i> , 2005, 192, 59-69.	0.1	0

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127	SN 1987A at the end of its second decade. , 2007, , .		0
128	Optical and near-IR observations of SN 1987A. , 2007, , .		0
129	Integral Field Spectroscopy of SN 1987A. , 2007, , .		0
130	Circumstellar interaction in Type IIn supernovae. Proceedings of the International Astronomical Union, 2013, 9, 135-143.	0.0	0
131	ALMA observations of Molecules in Supernova 1987A. Proceedings of the International Astronomical Union, 2017, 12, 294-299.	0.0	0
132	Thermal and Nonthermal Emission from Circumstellar Interaction. , 2017, , 1-63.		0