Supplementary data: Kreutzer et al., Software in the context of luminescence dating: status, concepts and suggestions exemplified by the R package 'Luminescence'

Screened articles

Articles used for the literature screening, for details on the selection see main text.

#	JOURNAL	AUTHORS	TITLE	YEAR	VOL	ISSUE	DOI
1	BOR	Long et al.	Luminescence dating of lacustrine sediments from Tangra Yumco (southern Tibetan Plateau) using post-IR IRSL signals from polymineral grains	2015	44		http://dx.doi.org/10.1111/bor.12096
2	BOR	Lowick et al.	Luminescence dating of Middle Pleistocene proglacial deposits from northern Switzerland: methodological aspects and stratigraphical conclusions	2015	44		http://dx.doi.org/10.1111/bor.12114
3	BOR	Rémillard et al.	Chronology and palaeoenvironmental implications of the ice-wedge pseudomorphs and composite-wedge casts on the Magdalen Islands (eastern Canada)	2015	44		http://dx.doi.org/10.1111/bor.12125
4	BOR	Roskosch et al.	Luminescence dating of ice-marginal deposits in northern Germany: evidence for repeated glaciations during the Middle Pleistocene (MIS 12 to MIS 6)	2015	44		http://dx.doi.org/10.1111/bor.12083
5	BOR	Fruergaard et al.	Sedimentary indications and absolute chronology of Holocene relative sea-level changes retrieved from coastal lagoon deposits on Samsø, Denmark	2015	44		http://dx.doi.org/10.1111/bor.12124
6	BOR	Fairburn, W. A. & Bateman, M. D.	A new multi-stage recession model for Proglacial Lake Humber during the retreat of the last British–Irish Ice Sheet	2016	45		http://dx.doi.org/10.1111/bor.12140
7	BOR	Houmark-Nielsen et al.	Evidence of ameliorated Middle Weichselian climate and subarctic environment in the western Baltic region: coring lake sediments at Klintholm, Møn, Denmark	2016	45		http://dx.doi.org/10.1111/bor.12159
8	BOR	Olszak, J. & Adamiec, G.	OSL-based chronostratigraphy of river terraces in mountainous areas, Dunajec basin, West Carpathians: a revision of the climatostratigraphical approach	2016	45		http://dx.doi.org/10.1111/bor.12163
9	BOR	Turner et al.	Stratigraphy of Pleistocene glaciations in the St Elias Mountains, southwest Yukon, Canada	2016	45		http://dx.doi.org/10.1111/bor.12172
10	BOR	Wacha et al.	The chronostratigraphy of the latest Middle Pleistocene aeolian and alluvial activity on the Island of Hvar, eastern Adriatic, Croatia	2016	45		http://dx.doi.org/10.1111/bor.12141
11	CAT	Lanckriet et al.	The Late-Holocene geomorphic history of the Ethiopian Highlands: Supportive evidence from May Tsimble	2015	135		http://dx.doi.org/10.1016/j.CAT.2015.08.011
12	CAT	Veit et al.	The Southern Westerlies in Central Chile during the two last glacial cycles as documented by coastal aeolian sand deposits and intercalating palaeosols	2015	134		http://dx.doi.org/10.1016/j.CAT.2014.11.002

#	JOURNAL	AUTHORS	TITLE	YEAR	VOL ISSUE	DOI
13	CAT	Sebe et al.	Pleistocene wind system in eastern Austria and its impact on landscape evolution	2015	134	http://dx.doi.org/10.1016/j.CAT.2015.02.004
14	CAT	Rodrigues et al.	Pre-Columbian agriculture in the Bolivian Lowlands: Construction history and management of raised fields in Bermeo	2015	132	http://dx.doi.org/10.1016/j.CAT.2014.08.021
15	CAT	von Suchodoletz	Fluvial sediments of the Algeti River in southeastern Georgia An archive of Late Quaternary landscape activity and stability in the Transcaucasian region	2015	130	http://dx.doi.org/10.1016/j.CAT.2014.06.019
16	CAT	Sauer et al.	The loess-palaeosol sequence of Datthausen, SW Germany: Characteristics, chronology, and implications for the use of the Lohne Soil as a marker soil	2016	146	http://dx.doi.org/10.1016/j.CAT.2016.06.024
17	CAT	Mao et al.	A multi-index analysis of the extraordinary paleoflood events recorded by slackwater deposits in the Yunxi Reach of the upper Hanjiang River, China	2016	145	http://dx.doi.org/10.1016/j.CAT.2016.05.016
18	CAT	Layzel et al.	Stratigraphy, morphology, and geochemistry of late Quaternary buried soils on the High Plains of southwestern Kansas, USA	2016	144	http://dx.doi.org/10.1016/j.CAT.2016.05.003
19	CAT	Zhuang et al.	Loess and early land use: Geoarchaeological investigation at the early Neolithic site of Guobei, Southern Chinese Loess Plateau	2016	144	http://dx.doi.org/10.1016/j.CAT.2016.05.005
20	CAT	da Rocha Campos et al.	Stratigraphic control and chronology of peat bog deposition in the Serra do Espinhao Meridional, Brazil	2016	143	http://dx.doi.org/10.1016/j.CAT.2016.04.009
21	EPSL	Lewis et al.	Complex sediment deposition history on a wide continental shelf: Implications for the calculation of accumulation rates on the Great Barrier Reef	2014	393	http://dx.doi.org/10.1016/j.epsl.2014.02.038
22	EPSL	Long et al.	High-resolution OSL dating of a late Quaternary sequence from Xingkai Lake (NE Asia): Chronological challenge of the MIS 3a Mega-paleolake hypothesis in China	2015	428	http://dx.doi.org/10.1016/j.epsl.2015.07.003
23	EPSL	Scherler et al.	Increased late Pleistocene erosion rates during fluvial aggradation in the Garhwal Himalaya, northern India	2015	428	http://dx.doi.org/10.1016/j.epsl.2015.06.034
24	EPSL	Xu et al.	Climate-driven changes to dune activity during the Last Glacial Maximum and deglaciation in the Mu Us dune field, north-central China	2015	427	http://dx.doi.org/10.1016/j.epsl.2015.07.002
25	EPSL	Gong et al.	Late Quaternary faulting on the Manas and Hutubi reverse faults in the northern foreland basin of Tian Shan, China	2015	424	http://dx.doi.org/10.1016/j.epsl.2015.05.030
26	EPSL	Guralnik et al.	OSL-thermochronometry of feldspar from the KTB borehole, Germany	2015	423	http://dx.doi.org/10.1016/j.epsl.2015.04.032
27	EPSL	Shi et al.	Crustal strength in central Tibet determined from Holocene shoreline deflection around Siling Co	2015	423	http://dx.doi.org/10.1016/j.epsl.2015.05.002
28	EPSL	Li et al.	Paleoenvironmental changes recorded in a luminescence dated loess/paleosol sequence from the Tianshan Mountains, arid central Asia, since the Penultimate Glaciation	2016	448	http://dx.doi.org/10.1016/j.epsl.2016.05.008
29	EPSL	Dolan et al.	Extreme multi-millennial slip rate variations on the Garlock fault, California: Strain super-cycles, potentially time-variable fault strength, and implications for system-level earthquake occurrence	2016	445	http://dx.doi.org/10.1016/j.epsl.2016.04.011

#	JOURNAL	AUTHORS	TITLE	YEAR	VOL	ISSUE	DOI
30	EPSL	Costas et al.	Windiness spells in SW Europe since the last glacial maximum	2016	436		http://dx.doi.org/10.1016/j.epsl.2015.12.023
31	GM	Chun Chang Huang et al.	Hydrological studies of the historical and palaeoflood events on the middle Yihe River, China	2016	274		http://dx.doi.org/10.1016/j.geomorph.2016.09.004
32	GM	Cesta & Ward	Timing and nature of alluvial fan development along the Chajnantor Plateau, northern Chile	2016	273		http://dx.doi.org/10.1016/j.geomorph.2016.09.003
33	GM	Cremon et al.	The role of tectonics and climate in the late Quaternary evolution of a northern Amazonian River	2016	271		http://dx.doi.org/10.1016/j.geomorph.2016.07.030
34	GM	Matter et al.	Reactivation of the Pleistocene trans-Arabian Wadi ad Dawasir fluvial system (Saudi Arabia) during HOL humid phase	2016	270		http://dx.doi.org/10.1016/j.geomorph.2016.07.013
35	GM	Bullón	The upper Pleistocene on the northern face of the Guadarrama Mountains (central Spain): Palaeoclimatic phases and glacial activity	2016	268		http://dx.doi.org/10.1016/j.geomorph.2016.06.015
36	GM	Kothyari & Luirei	Late Quaternary tectonic landforms and fluvial aggradation in the Saryu River valley: Central Kumaun Himalaya	2016	268		http://dx.doi.org/10.1016/j.geomorph.2016.06.010
37	GM	Sun et al.	Knickpoint series of gullies along the Luoyunshan Piedmont and its relation with fault activity since late Pleistocene	2016	268		http://dx.doi.org/10.1016/j.geomorph.2016.06.026
38	GM	Soria-Jáuregui et al.	Dynamics of Mediterranean late Quaternary fluvial activity: An example from the River Ebro (north Iberian Peninsula)	2016	268		http://dx.doi.org/10.1016/j.geomorph.2016.06.006
39	GM	Costa et al.	How did the AD 1755 tsunami impact on sand barriers across the southern coast of Portugal?	2016	268		http://dx.doi.org/10.1016/j.geomorph.2016.06.019
40	GM	McCloskey et al.	Timing and causes of gully erosion in the riparian zone of the semi-arid tropical Victoria River, Australia: Management implications	2016	266		http://dx.doi.org/10.1016/j.geomorph.2016.05.009
41	JQS	Gallagher et al.	A Marine Isotope Stage 4 age for Pleistocene raised beach deposits near Fethard, southern Ireland	2015	30	8	http://dx.doi.org/10.1002/jqs.2808
42	JQS	Quick et al.	A late Pleistocene–Holocene multi-proxy record of palaeoenvironmental change from Still Bay, southern Cape Coast, South Africa	2015	30	8	http://dx.doi.org/10.1002/jqs.2847
43	JQS	Hoyos et al.	A climatic trigger for catastrophic Pleistocene– Holocene debris flows in the Eastern Andean Cordillera of Colombia	2015	30	3	http://dx.doi.org/10.1002/jqs.2779
44	JQS	Hu et al.	Late Quaternary glacial advances in the eastern Qilianshan, north-eastern Tibet, as inferred from luminescence dating of fluvioglacial sediments	2016	31	6	http://dx.doi.org/10.1002/jqs.2882
45	JQS	Stevens et al.	Mass accumulation rate and monsoon records from Xifeng, Chinese Loess Plateau, based on a luminescence age model	2016	31	4	http://dx.doi.org/10.1002/jqs.2848
46	JQS	Sharma et al.	Factors responsible for driving the glaciation in the Sarchu Plain, eastern Zanskar Himalaya, during the late Quaternary	2016	31	5	http://dx.doi.org/10.1002/jqs.2874
47	JQS	Zhang et al.	Lake level reconstruction of Huangqihai Lake in northern China since MIS 3 based on pulsed optically stimulated luminescence dating	2016	31	3	http://dx.doi.org/10.1002/jqs.2861

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48	JQS	Jankowski et al.	A late Quaternary vertebrate deposit in Kudjal Yolgah Cave, south-western Australia: refining regional late Pleistocene extinctions	2016	31	5	http://dx.doi.org/10.1002/jqs.2877
49	JQS	Nimick et al.	Latest Pleistocene and Holocene glacial events in the Colonia valley, Northern Patagonia Icefield, southern Chile	2016	31	6	http://dx.doi.org/10.1002/jqs.2847
50	JQS	Evans et al.	Glacial Lake Pickering: stratigraphy and chronology of a proglacial lake dammed by the North Sea Lobe of the British–Irish Ice Sheet	2016			http://dx.doi.org/10.1002/jqs.2833
51	QG	do Nascimento Pupim et al.	Evaluating isothermal thermoluminescence and thermally transferred optically stimulated luminescence for dating of Pleistocene sediments in Amazonia	2016	36		http://dx.doi.org/10.1016/j.quageo.2016.08.003
52	QG	Valla et al.	Exploring IRSL50 fading variability in bedrock feldspars and implications for OSL thermochronometry	2016	36		http://dx.doi.org/10.1016/j.quageo.2016.08.004
53	QG	Arnold et al.	OSL dating of individual quartz 'supergrains' from the Ancient Middle Palaeolithic site of Cuesta de la Bajada, Spain	2016	36		http://dx.doi.org/10.1016/j.quageo.2016.07.003
54	QG	Diaz et al.	Pedogenic carbonate nodules as soil time archives: Challenges and investigations related to OSL dating	2016	36		http://dx.doi.org/10.1016/j.quageo.2016.08.008
55	QG	Brill et al.	Towards increasing the spatial resolution of luminescence chronologies e Portable luminescence reader measurements and standardized growth curves applied to a beach-ridge plain (Phra Thong, Thailand)	2016	36		http://dx.doi.org/10.1016/j.quageo.2016.09.003
56	QG	Simkins et al.	Investigation of optically stimulated luminescence behavior of quartz from crystalline rock surfaces: A look forward	2016	36		http://dx.doi.org/10.1016/j.quageo.2016.09.002
57	QG	Li et al.	Investigation of the applicability of standardised growth curves for OSL dating of quartz from Haua Fteah cave, Libya	2016	35		http://dx.doi.org/10.1016/j.quageo.2016.05.001
58	QG	Smedley & Pearce	Internal U, Th and Rb concentrations of alkali-feldspar grains: Implications for luminescence dating	2016	35		http://dx.doi.org/10.1016/j.quageo.2016.05.002
59	QG	Ankjærgaard et al.	Violet stimulated luminescence dating of quartz from Luochuan (Chinese loess plateau): Agreement with independent chronology up to 600 ka	2016	34		http://dx.doi.org/10.1016/j.quageo.2016.03.001
60	QG	Burbidge et al.	Parallel calibration transfer and systematic effects in retrospective absorbed dose estimation using OSL	2016	34		http://dx.doi.org/10.1016/j.quageo.2016.04.001
61	QI	Liu et al.	Growing pattern of mega-dunes in the Badain Jaran Desert in China revealed by luminescence ages	2016	410	Part B	http://dx.doi.org/10.1016/j.quaint.2015.09.048
62	QI	Hamdan et al.	An exploratory Early and Middle Holocene sedimentary record with palynoforms and diatoms from Faiyum lake, Egypt	2016	410	Part A	http://dx.doi.org/10.1016/j.quaint.2015.12.049
63	QI	Ozturk et al.	Records of repeated drought stages during HOL, Lake Iznik (Turkey) with reference to beachrock	2016	408	Part A	http://dx.doi.org/10.1016/j.quaint.2015.08.077
64	QI	del Valle et al.	Middle to Late Pleistocene dunefields in rocky coast settings at Cala Xuclar (Eivissa, Western Mediterranean): Recognition, architecture and luminescence chronology	2016	407	Part A	http://dx.doi.org/10.1016/j.quaint.2016.01.050

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65	QI	Quick et al.	Vegetation and climate dynamics during the last glacial period in the fynbos-afrotemperate forest ecotone, southern Cape, South Africa	2016	404	Part B	http://dx.doi.org/10.1016/j.quaint.2015.08.027
66	QI	Ozturk et al.	Cement fabrics and optical luminescence ages of beachrock, North Cyprus: Implications for Holocene sea-level changes	2016	401	Part C	http://dx.doi.org/10.1016/j.quaint.2015.03.024
67	QI	Polymeris et al.	Dating fossil root cast (Black Sea coast, Turkey) using thermoluminescence: Implications for windblown drift of shelf carbonates during MIS 2	2016	401	Part C	http://dx.doi.org/10.1016/j.quaint.2015.05.060
68	QI	Meri et al.	Did Amphistegina lobifera Larsen reach the Mediterranean via the Suez Canal?	2016	401	Part C	http://dx.doi.org/10.1016/j.quaint.2015.08.088
69	QI	Sun et al.	Pedostratigraphy of aeolian deposition near the Yunxian Man site on the Hanjiang River terraces, Yunxian Basin, central China	2016	400	Part C	http://dx.doi.org/10.1016/j.quaint.2015.05.034
70	QI	Krajcarz et al.	Middle Paleolithic sites of Katta Sai in western Tian Shan piedmont, Central Asiatic loess zone: Geoarchaeological investigation of the site formation and the integrity of the lithic assemblages	2016	399		http://dx.doi.org/10.1016/j.quaint.2015.07.051
71	QR	Kalińska-Nartiša et al.	Age and sedimentary record of inland eolian sediments in Lithuania, NE European Sand Belt	2015	84	1	http://dx.doi.org/10.1016/j.yqres.2015.04.001
72	QR	Nordt et al.	Late Quaternary environments of the Waco Mammoth site, Texas USA	2015	84	3	http://dx.doi.org/10.1016/j.yqres.2015.10.003
73	QR	Pope et al.	A chronology of alluvial fan response to Late Quaternary sea level and climate change, Crete	2016	86	2	http://dx.doi.org/10.1016/j.yqres.2016.06.003
74	QR	Hudson et al.	A regional record of expanded Holocene wetlands and prehistoric human occupation from paleowetland deposits of the western Yarlung Tsangpo valley, southern Tibetan Plateau	2016	86	1	http://dx.doi.org/10.1016/j.yqres.2016.04.001
75	QR	Guo et al.	Luminescence ages for three 'Middle Palaeolithic' sites in the Nihewan Basin, northern China, and their archaeological and palaeoenvironmental implications	2016	85	3	http://dx.doi.org/10.1016/j.yqres.2016.03.002
76	QR	Carr et al.	An optical luminescence chronology for late Pleistocene aeolian activity in the Colombian and Venezuelan Llanos	2016	85	2	http://dx.doi.org/10.1016/j.yqres.2015.12.009
77	QR	Kehl et al.	Site formation and chronology of the new Paleolithic site Sima de Las Palomas de Teba, southern Spain	2016	85	2	http://dx.doi.org/10.1016/j.yqres.2016.01.007
78	QR	Ordiozola et al.	Distribution and chronological framework for Iberian variscite mining and consumption at Pico Centeno, Encinasola, Spain	2016	85	1	http://dx.doi.org/10.1016/j.yqres.2015.11.010
79	QR	Hickin et al.	Coalescence of late Wisconsinan Cordilleran and Laurentide ice sheets east of the Rocky Mountain Foothills in the Dawson Creek region, northeast British Columbia, Canada	2016	85	3	http://dx.doi.org/0.1016/j.yqres.2016.02.005
80	QR	Dietze et al.	Environmental history recorded in aeolian deposits under stone pavements, Mojave Desert, USA	2016	85	1	http://dx.doi.org/10.1016/j.yqres.2015.11.007
81	QSR	Desruelles et al.	Evidence for early irrigation at Bat (Wadi Sharsah, northwestern Oman) before the advent of farming villages	2016	150	C	http://dx.doi.org/10.1016/j.quascirev.2016.08.007

#	JOURNAL	AUTHORS	TITLE	YEAR	VOL	ISSUE	DOI
82	QSR	Schirrmeister et al.	Late Quaternary paleoenvironmental records from the Chatanika River valley near Fairbanks (Alaska)	2016	150	C	http://dx.doi.org/10.1016/j.quascirev.2016.08.007
83	QSR	Dalton et al.	Constraining the Late Pleistocene history of the Laurentide Ice Sheet by dating the Missinaibi Formation, Hudson Bay Lowlands, Canada	2016	146	C	http://dx.doi.org/10.1016/j.quascirev.2016.06.015
84	QSR	Antinao et al.	Late Pleistocene-Holocene alluvial stratigraphy of southern Baja California, Mexico	2016	146	C	http://dx.doi.org/10.1016/j.quascirev.2016.06.008
85	QSR	Dortch et al.	The timing and cause of megafauna mass deaths at Lancefield Swamp, south-eastern Australia	2016	145	C	http://dx.doi.org/10.1016/j.quascirev.2016.05.042
86	QSR	Stimpson et al.	Middle Pleistocene vertebrate fossils from the Nefud Desert, Saudi Arabia: Implications for biogeography and palaeoecology	2016	143	C	http://dx.doi.org/10.1016/j.quascirev.2016.05.016
87	QSR	Tripaldi & Forman	Eolian depositional phases during the past 50 ka and inferred climate variability for the Pampean Sand Sea, western Pampas, Argentina	2016	139	C	http://dx.doi.org/10.1016/j.quascirev.2016.03.007
88	QSR	Livsey et al.	Drought modulated by North Atlantic sea surface temperatures for the last 3,000 years along the northwestern Gulf of Mexico	2016	135	C	http://dx.doi.org/10.1016/j.quascirev.2016.01.010
89	QSR	Smedley et al.	Luminescence dating of glacial advances at Lago Buenos Aires (∼46 °S), Patagonia	2016	134	C	http://dx.doi.org/10.1016/j.quascirev.2015.12.010
90	QSR	Hu et al.	Rapid fluvial incision and headward erosion by the Yellow River along the Jinshaan gorge during the past 1.2 Ma as a result of tectonic extension	2016	133	C	http://dx.doi.org/10.1016/j.quascirev.2015.12.003
91	HOL	Jin et al.	Holocene shorelines and lake evolution in Juyanze Basin, southern Mongolian Plateau, revealed by luminescence dating	2015	25	12	http://dx.doi.org/10.1177/0959683615591349
92	HOL	Hede et al.	Changes in Holocene relative sea-level and coastal morphology: A study of a raised beach ridge system on Samsø, southwest Scandinavia	2015	25	9	http://dx.doi.org/10.1177/0959683615585834
93	HOL	Leonard & Nott	Rapid Cycles of Episodic Adjustment: Understanding HOL fluvial archive of the Daintree River of Northeastern Australia	2015	25	8	http://dx.doi.org/10.1177/0959683615580860
94	HOL	Portenga et al.	Timing of post-European settlement alluvium deposition in SE Australia: A legacy of European land-use in the Goulburn Plains	2016	26	9	http://dx.doi.org/10.1177/0959683616640047
95	HOL	Guo et al.	Palaeo-earthquake and palaeo-mudflow events at the Machangyuan Ruins in the Huangshui River valley, northeastern margin of the Tibetan Plateau	2016	26	8	http://dx.doi.org/10.1177/0959683616638437
96	HOL	Larsen et al.	The influence of historic land-use changes on hillslope erosion and sediment redistribution	2016	26	8	http://dx.doi.org/10.1177/0959683616638420
97	HOL	Müller et al.	Holocene palaeosols and aeolian activities in the Umimmalissuaq valley, West Greenland	2016	26	7	http://dx.doi.org/10.1177/0959683616632885
98	HOL	Hu et al.	Extreme paleoflood events 3200–3000 a BP in the Jingyuan–Jingtai reaches of the upper Yellow River, China	2016	26	5	http://dx.doi.org/10.1177/0959683615618257
99	HOL	Fan et al.	History and mechanisms for the expansion of the Badain Jaran Desert, northern China, since 20 ka: Geological and luminescence chronological evidence	2016	26	4	http://dx.doi.org/10.1177/0959683615612588

#	JOURNAL	AUTHORS	TITLE	YEAR	VOL	ISSUE	DOI
100	HOL	Ahlborn et al.	Holocene lake level history of the Tangra Yumco lake system, southern-central Tibetan Plateau	2016	26	2	http://dx.doi.org/10.1177/0959683615596840

BOR = Boreas, CAT = Catena, EPSL = Earth Planetary Science Letters, GM = Geomorphology, JQS = Journal of Quaternary Science, QG = Quaternary Geochronology QI = Quaternary International, QR = Quaternary Research, QSR = Quaternary Science Reviews, HOL = The Holocene

Additional graphics

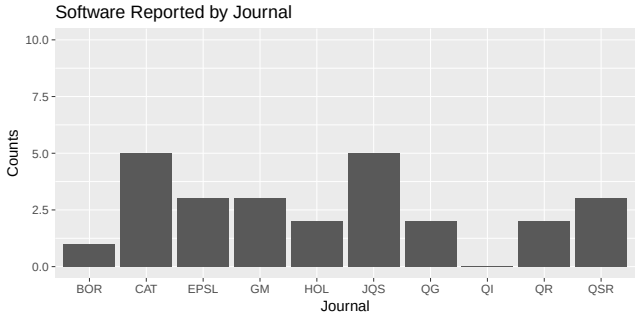

Figure S1: Software reported by journal.

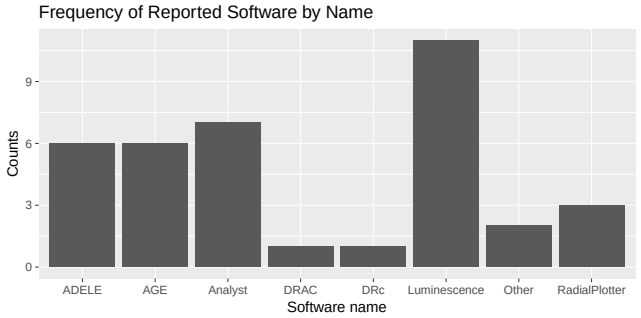

Figure S2: Frequency of reported software by name