

Jürgen Neubauer

List of Publications by Year in descending order

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72
papers

4,881
citations

101543

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docs citations

72
times ranked

3612
citing authors

#	ARTICLE	IF	CITATIONS
1	Synchronous Monitoring of Cement Hydration and Polymer Film Formation Using ^1H -Time-Domain-NMR with ^2T -Time-Weighted ^1T -Time Evaluation: A Nondestructive Practicable Benchtop Method. ACS Omega, 2021, 6, 7499-7511.	3.5	2
2	Reaction kinetics during early hydration of calcined phyllosilicates in clinker-free model systems. Cement and Concrete Research, 2021, 143, 106382.	11.0	20
3	Impact of KOH on the interfacial precipitation rates of C-S-H during the early hydration of C3S. Cement and Concrete Research, 2021, 146, 106488.	11.0	5
4	Influence of aluminium on the hydration of triclinic C3S with addition of KOH solution. Cement and Concrete Research, 2020, 137, 106198.	11.0	31
5	Reactivity of Metakaolin in Alkaline Environment: Correlation of Results from Dissolution Experiments with XRD Quantifications. Materials, 2020, 13, 2214.	2.9	18
6	Phase Solubility Changes during Hydration of Monocalciumaluminate and Calcite – The Influence of Alkali Accumulation. Materials, 2020, 13, 1406.	2.9	6
7	Investigation of the Incompatibilities of Cement and Superplasticizers and Their Influence on the Rheological Behavior. Materials, 2020, 13, 977.	2.9	23
8	C-S-H Pore Size Characterization Via a Combined Nuclear Magnetic Resonance (NMR) – Scanning Electron Microscopy (SEM) Surface Relaxivity Calibration. Materials, 2020, 13, 1779.	2.9	17
9	Comparing Phase Development and Rheological Properties of OPC Paste Within the First Hour of Hydration. RILEM Bookseries, 2020, , 219-227.	0.4	2
10	Mechanisms of early ettringite formation in ternary CSA – OPC – anhydrite systems. Advances in Cement Research, 2019, 31, 195-204.	1.6	22
11	Relating Ettringite Formation and Rheological Changes during the Initial Cement Hydration: A Comparative Study Applying XRD Analysis, Rheological Measurements and Modeling. Materials, 2019, 12, 2957.	2.9	56
12	Hydration of calcium aluminates at 60°C – Development paths of C_2AH_x in dependence on the content of free water. Journal of the American Ceramic Society, 2019, 102, 4376-4387.	3.8	15
13	Hydration of C3S in presence of CA : Mineral – pore solution interaction. Journal of the American Ceramic Society, 2019, 102, 3152-3162.	3.8	10
14	Implications for C_3S kinetics from combined $\text{C}_3\text{S}/\text{CA}$ hydration. Journal of the American Ceramic Society, 2018, 101, 4137-4145.	3.8	8
15	Quantitative X-ray diffraction of free, not chemically bound water with the PONKCS method. Journal of Applied Crystallography, 2018, 51, 1535-1543.	4.5	18
16	Interaction of silicate and aluminate reaction in a synthetic cement system: Implications for the process of alite hydration. Cement and Concrete Research, 2017, 93, 32-44.	11.0	84
17	Studies on the early hydration of two modifications of ye'elimite with gypsum. Cement and Concrete Research, 2017, 91, 106-116.	11.0	112
18	Hydration mechanism of partially amorphized β -tricalcium phosphate. Acta Biomaterialia, 2017, 54, 429-440.	8.3	7

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19	Routine (an)isotropic crystallite size analysis in the double-Voigt approximation done right?. Powder Diffraction, 2017, 32, S27-S34.	0.2	14
20	Measuring the Burning Temperatures of Anhydrite Micrograins in a High-Fired Medieval Gypsum Mortar. ChemistrySelect, 2017, 2, 9153-9156.	1.5	6
21	Hydration enthalpy of amorphous tricalcium phosphate resulting from partially amorphization of \hat{I}^2 -tricalcium phosphate. BioNanoMaterials, 2017, 18, .	1.4	3
22	Effect of Carbon-Based Materials on the Early Hydration of Tricalcium Silicate. Journal of the American Ceramic Society, 2016, 99, 2181-2196.	3.8	26
23	Study of hydration potential and kinetics of the ferrite phase in iron-rich CAC. Cement and Concrete Research, 2016, 83, 79-85.	11.0	38
24	Influence of crystallinity and surface area on the hydration kinetics of CA2. Cement and Concrete Research, 2016, 89, 136-144.	11.0	11
25	Influence of the specific surface area of alumina fillers on CAC hydration kinetics. Advances in Cement Research, 2016, 28, 62-70.	1.6	7
26	Influence of the reactivity of the amorphous part of mechanically activated alite on its hydration kinetics. Cement and Concrete Research, 2016, 88, 73-81.	11.0	9
27	Calcium aluminates in clinker remnants as marker phases for various types of 19th-century cement studied by Raman microspectroscopy. European Journal of Mineralogy, 2016, 28, 907-914.	1.3	12
28	Synthesis of monocrystalline Ca_3SiO_5 using the optical floating zone method. Cement and Concrete Research, 2016, 85, 156-162.	11.0	7
29	Influence of Sr^{2+} on Calcium-Deficient Hydroxyapatite Formation Kinetics and Morphology in Partially Amorphized \hat{I}^{\pm} -TCP. Journal of the American Ceramic Society, 2016, 99, 1055-1063.	3.8	9
30	Effect of polymer latexes with cleaned serum on the phase development of hydrating cement pastes. Cement and Concrete Research, 2016, 84, 30-40.	11.0	91
31	In situ ^1H -TD-NMR: Quantification and microstructure development during the early hydration of alite and OPC. Cement and Concrete Research, 2016, 79, 366-372.	11.0	40
32	Reaction kinetics of dual setting \hat{I}^{\pm} -tricalcium phosphate cements. Journal of Materials Science: Materials in Medicine, 2016, 27, 1.	3.6	113
33	Domain size anisotropy in the double-Voigt approach: an extended model. Journal of Applied Crystallography, 2015, 48, 1998-2001.	4.5	17
34	Calorimetry investigations of milled \hat{I}^{\pm} - tricalcium phosphate (\hat{I}^{\pm} - TCP) powders to determine the formation enthalpies of \hat{I}^{\pm} - TCP and X-ray amorphous tricalcium phosphate. Acta Biomaterialia, 2015, 23, 338-346.	8.3	14
35	A generalized geometric approach to anisotropic peak broadening due to domain morphology. Journal of Applied Crystallography, 2015, 48, 189-194.	4.5	54
36	Mechanically activated alite: New insights into alite hydration. Cement and Concrete Research, 2015, 76, 202-211.	11.0	55

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37	How to increase the hydration degree of CA – The influence of CA particle fineness. Cement and Concrete Research, 2015, 67, 11-20.	11.0	23
38	The influence of fly ash on the hydration of OPC within the first 44h – A quantitative in situ XRD and heat flow calorimetry study. Cement and Concrete Research, 2014, 56, 129-138.	11.0	87
39	Effect of amorphous phases during the hydraulic conversion of $\hat{1}\pm$ -TCP into calcium-deficient hydroxyapatite. Acta Biomaterialia, 2014, 10, 3931-3941.	8.3	46
40	Effect of polymers on cement hydration: A case study using substituted PDADMA. Cement and Concrete Composites, 2013, 35, 71-77.	10.7	26
41	Hydration kinetics of CA ₂ and CA – Investigations performed on a synthetic calcium aluminate cement. Cement and Concrete Research, 2013, 43, 62-69.	11.0	105
42	Effect of temperature on the hydration of Portland cement blended with siliceous fly ash. Cement and Concrete Research, 2013, 52, 169-181.	11.0	193
43	Quantitative analysis of C – S – H in hydrating alite pastes by in-situ XRD. Cement and Concrete Research, 2013, 53, 119-126.	11.0	180
44	The hydration of synthetic brownmillerite in presence of low Ca-sulfate content and calcite monitored by quantitative in-situ-XRD and heat flow calorimetry. Cement and Concrete Research, 2013, 54, 61-68.	11.0	58
45	Hydration of Portland cement with high replacement by siliceous fly ash. Cement and Concrete Research, 2012, 42, 1389-1400.	11.0	387
46	The early hydration of Ordinary Portland Cement (OPC): An approach comparing measured heat flow with calculated heat flow from QXRD. Cement and Concrete Research, 2012, 42, 134-138.	11.0	292
47	Change in reaction kinetics of a Portland cement caused by a superplasticizer – Calculation of heat flow curves from XRD data. Cement and Concrete Research, 2012, 42, 327-332.	11.0	158
48	Spatially resolved quantitative in-situ phase analysis of a self-leveling compound. Cement and Concrete Research, 2012, 42, 919-927.	11.0	7
49	Cosubstitution of Zinc and Strontium in $\hat{1}^2$ -Tricalcium Phosphate: Synthesis and Characterization. Journal of the American Ceramic Society, 2011, 94, 230-235.	3.8	27
50	The hydration of alite: a time-resolved quantitative X-ray diffraction approach using the $\langle i \rangle G \langle /i \rangle$ -factor method compared with heat release. Journal of Applied Crystallography, 2011, 44, 895-901.	4.5	53
51	A new approach in quantitative in-situ XRD of cement pastes: Correlation of heat flow curves with early hydration reactions. Cement and Concrete Research, 2011, 41, 123-128.	11.0	256
52	A remastered external standard method applied to the quantification of early OPC hydration. Cement and Concrete Research, 2011, 41, 602-608.	11.0	291
53	Magnesium quantification in calcites [(Ca,Mg)CO ₃] by Rietveld-based XRD analysis: Revisiting a well-established method. American Mineralogist, 2011, 96, 1028-1038.	1.9	46
54	Does Ordinary Portland Cement contain amorphous phase? A quantitative study using an external standard method. Powder Diffraction, 2011, 26, 31-38.	0.2	163

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55	Synthesis and structural characterization of strontium- and magnesium-co-substituted \hat{I}^2 -tricalcium phosphate. <i>Acta Biomaterialia</i> , 2010, 6, 571-576.	8.3	123
56	A comparative structural study of wet and dried ettringite. <i>Cement and Concrete Research</i> , 2010, 40, 370-375.	11.0	59
57	Newly developed Sr-substituted \hat{I}^{\pm} -TCP bone cements. <i>Acta Biomaterialia</i> , 2010, 6, 928-935.	8.3	79
58	Synthesis and Structure Refinement of Zinc-Doped \hat{I}^2 -tricalcium Phosphate Powders. <i>Journal of the American Ceramic Society</i> , 2009, 92, 1592-1595.	3.8	61
59	Quantitative determination of anhydrite III from dehydrated gypsum by XRD. <i>Cement and Concrete Research</i> , 2009, 39, 936-941.	11.0	64
60	Quantitative <i>in situ</i> X-ray diffraction analysis of early hydration of Portland cement at defined temperatures. <i>Powder Diffraction</i> , 2009, 24, 112-115.	0.2	50
61	Application of two-dimensional XRD for the characterization of the microstructure of self-leveling compounds. <i>Powder Diffraction</i> , 2009, 24, 107-111.	0.2	5
62	Quantitative Analysis of Crystalline and Amorphous Phases in Glass-Ceramic Composites Like LTCC by the Rietveld Method. <i>Journal of the American Ceramic Society</i> , 2006, 89, 2632-2637.	3.8	64
63	Mineralogical characteristics of Ettringites synthesized from solutions and suspensions. <i>Cement and Concrete Research</i> , 2006, 36, 65-70.	11.0	67
64	Refined ettringite ($\text{Ca}_{6-x}\text{Al}_2(\text{SO}_4)_3(\text{OH})_{12} \cdot n\text{H}_2\text{O}$) structure for quantitative X-ray diffraction analysis. <i>Powder Diffraction</i> , 2006, 21, 4-11.	0.2	158
65	Nonlinear phenomena in contemporary vocal music. <i>Journal of Voice</i> , 2004, 18, 1-12.	1.5	44
66	Pre-ceramic polymer derived cellular ceramics. <i>Composites Science and Technology</i> , 2003, 63, 2361-2370.	7.8	101
67	Growth of high-quality homoepitaxial diamond films by HF-CVD. <i>Diamond and Related Materials</i> , 2002, 11, 504-508.	3.9	18
68	Calls out of chaos: the adaptive significance of nonlinear phenomena in mammalian vocal production. <i>Animal Behaviour</i> , 2002, 63, 407-418.	1.9	451
69	Spatio-temporal analysis of irregular vocal fold oscillations: Biphonation due to desynchronization of spatial modes. <i>Journal of the Acoustical Society of America</i> , 2001, 110, 3179-3192.	1.1	114
70	Investigations on introducing Si and Mg into Brownmillerite - A Rietveld refinement. <i>Cement and Concrete Research</i> , 1996, 26, 77-82.	11.0	14
71	A reply to a discussion by John Bensted of the paper "Alinite-chemical composition, solid solution and hydration behaviour": <i>Cement and Concrete Research</i> , 1995, 25, 1808-1810.	11.0	4
72	Alinite - Chemical composition, solid solution and hydration behaviour. <i>Cement and Concrete Research</i> , 1994, 24, 1413-1422.	11.0	25