

# Philippe Vanderbemden

## List of Publications by Year in descending order

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102  
papers

1,686  
citations

279487

23  
h-index

377514

34  
g-index

104  
all docs

104  
docs citations

104  
times ranked

1258  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bulk superconductors: a roadmap to applications. Superconductor Science and Technology, 2018, 31, 103501.	1.8	152
2	Magnetic shielding properties of high-temperature superconducting tubes subjected to axial fields. Superconductor Science and Technology, 2007, 20, 192-201.	1.8	62
3	Design and real-time test of a hybrid energy storage system in the microgrid with the benefit of improving the battery lifetime. Applied Energy, 2018, 218, 470-478.	5.1	53
4	Magnetocaloric and transport study of poly- and nanocrystalline composite manganites La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> /La <sub>0.8</sub> Sr <sub>0.2</sub> MnO <sub>3</sub> . Journal of Applied Physics, 2012, 112, .	1.1	48
5	Magnetocaloric effect in nano- and polycrystalline manganites La <sub>0.5</sub> Ca <sub>0.5</sub> MnO <sub>3</sub> . Journal of Alloys and Compounds, 2010, 507, 350-355.	2.8	44
6	Magnetocaloric effect of monovalent K doped manganites Pr <sub>0.6</sub> Sr <sub>0.4</sub> <sup>x</sup> K <sub>x</sub> MnO <sub>3</sub> (x=0 to 0.2). Journal of Magnetism and Magnetic Materials, 2014, 352, 6-12.	1.0	44
7	Magnetocaloric effect in nano- and polycrystalline manganite La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> . Applied Physics A: Materials Science and Processing, 2007, 90, 237-241.	1.1	41
8	Remagnetization of bulk high-temperature superconductors subjected to crossed and rotating magnetic fields. Superconductor Science and Technology, 2007, 20, S174-S183.	1.8	40
9	Numerical modelling and comparison of MgB <sub>2</sub> bulks fabricated by HIP and infiltration growth. Superconductor Science and Technology, 2015, 28, 075009.	1.8	37
10	Numerical simulation of the magnetization of high-temperature superconductors: a 3D finite element method using a single time-step iteration. Superconductor Science and Technology, 2009, 22, 055005.	1.8	36
11	Magnetotransport properties of a single grain boundary in a bulk La <sub>1-x</sub> Ca <sub>x</sub> MnO <sub>3</sub> material. Journal of Applied Physics, 2001, 90, 5692-5697.	1.1	35
12	Numerical Study of the Shielding Properties of Macroscopic Hybrid Ferromagnetic/Superconductor Hollow Cylinders. IEEE Transactions on Applied Superconductivity, 2010, 20, 33-41.	1.1	34
13	Magnetic flux penetration in Nb superconducting films with lithographically defined microindentations. Physical Review B, 2016, 93, .	1.1	33
14	Magnetic shielding properties of high-temperature superconducting hollow cylinders: model combining experimental data for axial and transverse magnetic field configurations. Superconductor Science and Technology, 2009, 22, 105002.	1.8	31
15	The Numerical Modeling and Measurement of Demagnetization Effect in Bulk YBCO Superconductors Subjected to Transverse Field. IEEE Transactions on Applied Superconductivity, 2008, 18, 1561-1564.	1.1	30
16	Spin-cluster effect and lattice-deformation-induced Kondo effect, spin-glass freezing, and strong phonon scattering in La <sub>0.7</sub> Ca <sub>0.3</sub> Mn <sub>1-x</sub> CrxO <sub>3</sub> . Journal of Applied Physics, 2005, 97, 103908.	1.1	29
17	Electrical transport and magnetic properties of Mn <sub>3</sub> O <sub>4</sub> -La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> ceramic composites prepared by a one-step spray-drying technique. Journal of the European Ceramic Society, 2007, 27, 3923-3926.	2.8	29
18	Magnetocaloric effect and magnetic properties of Tb <sub>0.9</sub> Sn <sub>0.1</sub> MnO <sub>3</sub> . Journal of Applied Physics, 2007, 101, 103904.	1.1	28

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19	LiMn <sub>2</sub> xTi <sub>x</sub> O <sub>4</sub> spinel-type compounds (x=0.1): Structural, electrical and magnetic properties. Solid State Ionics, 2006, 177, 1033-1040.	1.3	27
20	Influence of soft ferromagnetic sections on the magnetic flux density profile of a large grain, bulk YBaCuO superconductor. Superconductor Science and Technology, 2015, 28, 095008.	1.8	27
21	Imprinting superconducting vortex footsteps in a magnetic layer. Scientific Reports, 2016, 6, 27159.	1.6	25
22	Quantitative magneto-optical investigation of superconductor/ferromagnet hybrid structures. Review of Scientific Instruments, 2018, 89, 023705.	0.6	25
23	High field behavior of artificially engineered boundaries in melt-processed YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Applied Physics Letters, 1998, 73, 117-119.	1.5	24
24	Field penetration into hard type-II superconducting tubes: effects of a cap, a non-superconducting joint, and non-uniform superconducting properties. Superconductor Science and Technology, 2007, 20, 418-427.	1.8	24
25	Effect of Ag substitution on structural, magnetic and magnetocaloric properties of Pr <sub>0.6</sub> Sr <sub>0.4</sub> xAg <sub>x</sub> MnO <sub>3</sub> manganites. Journal of Rare Earths, 2017, 35, 875-882.	2.5	24
26	Shielding efficiency and $E_c$ characteristics measured on large melt cast Bi-2212 hollow cylinders in axial magnetic fields. Superconductor Science and Technology, 2010, 23, 095012.	1.8	22
27	Magnetic Shielding Above 1 T at 20 K With Bulk, Large Grain YBCO Tubes Made by Buffer-Aided Top Seeded Melt Growth. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	22
28	La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> / Mn <sub>3</sub> O <sub>4</sub> composites: Does an insulating secondary phase always enhance the low field magnetoresistance of manganites?. Journal of Applied Physics, 2012, 111, .	1.1	21
29	Magnetic characterisation of large grain, bulk YBaCuO superconductor soft ferromagnetic alloy hybrid structures. Physica C: Superconductivity and Its Applications, 2014, 502, 20-30.	0.6	21
30	Investigation of DyBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> d superconducting domains grown by the infiltration technique starting with small size Dy-211 particles. Superconductor Science and Technology, 2005, 18, S136-S141.	1.8	20
31	Magnetic Shielding With YBCO Coated Conductors: Influence of the Geometry on Its Performances. IEEE Transactions on Applied Superconductivity, 2013, 23, 8200504-8200504.	1.1	20
32	Magnetic alignment in 2212 Bi-based superconducting system: Part I. Magnetic orientation of Bi <sub>2</sub> Sr <sub>2</sub> Ca <sub>1</sub> (RE) <sub>2</sub> Cu <sub>2</sub> O <sub>8</sub> [(RE) = Gd, Dy, Ho, Er] powder dispersed in epoxy resin at room temperature. Journal of Materials Research, 1996, 11, 1082-1085.	1.2	19
33	Synthesis of CMR manganate compounds: the consequences of the choice of a precursor method. Materials Letters, 2002, 57, 598-603.	1.3	19
34	The contribution of 211 particles to the mechanical reinforcement mechanism of 123 superconducting single domains. Superconductor Science and Technology, 2004, 17, 169-174.	1.8	19
35	Study by Hall probe mapping of the trapped flux modification produced by local heating in YBCO HTS bulks for different surface/volume ratios. Superconductor Science and Technology, 2005, 18, 1047-1053.	1.8	19
36	An ac susceptometer for the characterization of large, bulk superconducting samples. Measurement Science and Technology, 2008, 19, 085705.	1.4	19

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37	Magnetic susceptibility and electron magnetic resonance study of monovalent potassium doped manganites $\text{Pr}_{0.6}\text{Sr}_{0.4-x}\text{K}_x\text{MnO}_3$ . <i>Journal of Alloys and Compounds</i> , 2013, 580, 137-142.	2.8	19
38	Magnetotransport study of $\text{MgB}_2$ superconductor. <i>Superconductor Science and Technology</i> , 2003, 16, 1167-1172.	1.8	18
39	Magnetic shielding properties of a superconducting hollow cylinder containing slits: modelling and experiment. <i>Superconductor Science and Technology</i> , 2012, 25, 104006.	1.8	17
40	Magneto-thermal phenomena in bulk high temperature superconductors subjected to applied AC magnetic fields. <i>Superconductor Science and Technology</i> , 2010, 23, 075006.	1.8	16
41	Use of second generation coated conductors for efficient shielding of dc magnetic fields. <i>Journal of Applied Physics</i> , 2010, 108, 013910.	1.1	16
42	Effect of nanocrystalline structure on magnetocaloric effect in manganite composites $(1/3)\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3/(2/3)\text{La}_{0.8}\text{Sr}_{0.2}\text{MnO}_3$ . <i>Journal of Alloys and Compounds</i> , 2015, 629, 98-104.	2.8	16
43	Preparation of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ superconducting thick films by the electrophoretic deposition method. <i>Journal of Materials Science</i> , 2006, 41, 8109-8114.	1.7	15
44	DC and AC Shielding Properties of Bulk High-Tc Superconducting Tubes. <i>IEEE Transactions on Applied Superconductivity</i> , 2009, 19, 2905-2908.	1.1	15
45	Magnetic properties of drilled bulk high-temperature superconductors filled with a ferromagnetic powder. <i>Superconductor Science and Technology</i> , 2011, 24, 035008.	1.8	15
46	A SC/battery Hybrid Energy Storage System in the Microgrid. <i>Energy Procedia</i> , 2017, 142, 3697-3702.	1.8	15
47	Magnetic flux penetration and creep in BSSCO-2223 composite ceramics. <i>Superconductor Science and Technology</i> , 1998, 11, 94-100.	1.8	14
48	Magnetic properties and anisotropy of orthorhombic $\text{DyMnO}_3$ single crystal. <i>Journal of Magnetism and Magnetic Materials</i> , 2013, 335, 46-52.	1.0	14
49	A comparative study of triaxial and uniaxial magnetic shields made out of YBCO coated conductors. <i>Superconductor Science and Technology</i> , 2015, 28, 074001.	1.8	14
50	Magneto transport characterization of the Sn-doped $\text{TbMnO}_3$ manganites. <i>Journal of Alloys and Compounds</i> , 2009, 467, 35-40.	2.8	13
51	Measurements of Thermal Effects in a Bulk YBCO Single Domain Superconductor Submitted to a Variable Magnetic Field. <i>IEEE Transactions on Applied Superconductivity</i> , 2007, 17, 3036-3039.	1.1	12
52	Magnetocaloric effect in $\text{La}_{0.75}\text{Sr}_{0.25}\text{MnO}_3$ manganite. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 3460-3463.	1.0	11
53	Bulk superconducting tube subjected to the stray magnetic field of a solenoid. <i>Superconductor Science and Technology</i> , 2018, 31, 015001.	1.8	11
54	Specific heat and magnetocaloric effect in $\text{Pr}_{0.6}\text{Sr}_{0.4-x}\text{Ag}_x\text{MnO}_3$ manganites. <i>Intermetallics</i> , 2018, 102, 88-93.	1.8	11

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55	Behavior of bulk melt-textured YBCO single domains subjected to crossed magnetic fields. IEEE Transactions on Applied Superconductivity, 2003, 13, 3746-3749.	1.1	10
56	Spray drying: An alternative synthesis method for polycationic oxide compounds. Journal of Physics and Chemistry of Solids, 2011, 72, 158-163.	1.9	10
57	Self-heating of bulk high temperature superconductors of finite height subjected to a large alternating magnetic field. Superconductor Science and Technology, 2010, 23, 124004.	1.8	9
58	Czochralski Crystal Growth, Thermal Conductivity, and Magnetic Properties of $\text{Pr}_{1-x}\text{La}_x\text{AlO}_3$ , where $x = 1, 0.75, 0.55, 0.40, 0$ . Crystal Growth and Design, 2011, 11, 1091-1097.	1.4	9
59	Magnetic moment and local magnetic induction of superconducting/ferromagnetic structures subjected to crossed fields: experiments on GdBCO and modelling. Superconductor Science and Technology, 2016, 29, 125004.	1.8	9
60	Magnetic shielding of a short thick GdBCO tube fabricated by the buffer aided top-seeded infiltration and growth method. Superconductor Science and Technology, 2019, 32, 115015.	1.8	9
61	Magnetic shielding of various geometries of bulk semi-closed superconducting cylinders subjected to axial and transverse fields. Superconductor Science and Technology, 2019, 32, 074007.	1.8	9
62	Magnetic Shielding of Open and Semi-closed Bulk Superconductor Tubes: The Role of a Cap. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-9.	1.1	9
63	Effects of silicon addition on the electrical and magnetic properties of copper-doped (La,Ca)MnO <sub>3</sub> compounds. Journal of Magnetism and Magnetic Materials, 2004, 268, 364-373.	1.0	7
64	Measurement of the magnetic field inside the holes of a drilled bulk high-T <sub>c</sub> superconductor. Superconductor Science and Technology, 2009, 22, 045009.	1.8	7
65	YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> thick films for magnetic shielding: Electrophoretic deposition from butanol-based suspension. Materials Letters, 2014, 119, 154-156.	1.3	7
66	Magnetic shielding of an inhomogeneous magnetic field source by a bulk superconducting tube. Superconductor Science and Technology, 2015, 28, 035011.	1.8	7
67	A Novel Fault Detection and Fault Location Method for VSC-HVDC Links Based on Gap Frequency Spectrum Analysis. Energy Procedia, 2017, 142, 2243-2249.	1.8	7
68	Growth features and intergranular connectivity of melt processed YBCO. Applied Superconductivity, 1996, 4, 507-517.	0.5	6
69	Anisotropic AC behavior of multifilamentary Bi-2223/Ag tapes. IEEE Transactions on Applied Superconductivity, 2003, 13, 2976-2979.	1.1	6
70	Unusual thermoelectric behavior of packed crystalline granular metals. Journal of Applied Physics, 2004, 96, 7338-7345.	1.1	6
71	The influence of a grain boundary on the thermal transport properties of bulk, melt-processed YBaCuO. Superconductor Science and Technology, 2013, 26, 015006.	1.8	6
72	A flux extraction device to measure the magnetic moment of large samples; application to bulk superconductors. Review of Scientific Instruments, 2015, 86, 025107.	0.6	6

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73	Locally induced laminar convection in liquid nitrogen and silicone oils. <i>European Physical Journal E</i> , 2016, 39, 79.	0.7	6
74	Critical analysis of the paramagnetic to ferromagnetic phase transition in Pr <sub>0.55</sub> K <sub>0.05</sub> Sr <sub>0.4</sub> MnO <sub>3</sub> . <i>Physica B: Condensed Matter</i> , 2016, 482, 8-13.	1.3	6
75	Use of partial discharge patterns to assess the quality of sample/electrode contacts in flash sintering. <i>Journal of the European Ceramic Society</i> , 2021, 41, 669-683.	2.8	6
76	Magneto-transport study of Nb-doped Bi/Pb2223 superconductor. <i>Physica C: Superconductivity and Its Applications</i> , 2003, 387, 191-197.	0.6	5
77	Magneto-transport characterization of Dy123 monodomain superconductors. <i>Applied Physics A: Materials Science and Processing</i> , 2005, 81, 1001-1007.	1.1	5
78	Pulsed-field magnetization of drilled bulk high-temperature superconductors: flux front propagation in the volume and on the surface. <i>Superconductor Science and Technology</i> , 2009, 22, 125026.	1.8	5
79	Measurements on magnetized GdBCO pellets subjected to small transverse ac magnetic fields at very low frequency: Evidence for a slowdown of the magnetization decay. <i>Physica C: Superconductivity and Its Applications</i> , 2015, 512, 42-53.	0.6	5
80	Some features of bulk melt-textured high-temperature superconductors subjected to alternating magnetic fields. <i>Journal of Physics: Conference Series</i> , 2014, 558, 012016.	0.3	4
81	Magnetic shielding performances of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> -coated silver tubes obtained by electrophoretic deposition. <i>Superconductor Science and Technology</i> , 2015, 28, 015007.	1.8	4
82	Influence of crossed fields in structures combining large grain, bulk (RE)BCO superconductors and soft ferromagnetic discs. <i>Journal of Physics: Conference Series</i> , 2016, 695, 012003.	0.3	4
83	Study of buoyancy driven heat transport in silicone oils and in liquid nitrogen in view of cooling applications. <i>International Journal of Heat and Mass Transfer</i> , 2018, 118, 538-550.	2.5	4
84	STUDIES ON CONVECTIVE COOLING OF CRYOGENIC FLUIDS TOWARDS SUPERCONDUCTING APPLICATIONS. , 2017, , .		4
85	Trapped magnetic field distribution above a superconducting linear Halbach array. <i>Superconductor Science and Technology</i> , 2022, 35, 064005.	1.8	4
86	Characterisation of the magnetic shielding properties of YBaCuO thick films prepared by electrophoretic deposition on silver substrates. <i>Journal of Physics: Conference Series</i> , 2006, 43, 509-512.	0.3	3
87	Processing and applications of (RE)BCO and MgB <sub>2</sub> bulk superconductors: an introduction to the special issue. <i>Superconductor Science and Technology</i> , 2016, 29, 060302.	1.8	3
88	Trapped magnetic field distribution above two magnetized bulk superconductors close to each other. <i>Superconductor Science and Technology</i> , 2020, 33, 064003.	1.8	3
89	Texturation of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> Thick Films by Electrophoretic Deposition under Magnetic Field. <i>Key Engineering Materials</i> , 2006, 314, 153-158.	0.4	2
90	Design and fabrication of an electrode array sensor for probing the electric potential distribution at the mesoscopic scale in antistatic felts. <i>Measurement Science and Technology</i> , 2014, 25, 075903.	1.4	2

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91	Magnetic properties of melt-textured DyBCO single domains. Materials Research Society Symposia Proceedings, 2000, 659, 1.	0.1	1
92	Measurement of dielectric properties at low temperatures: application to the study of magnetoresistive manganite/ insulating oxide bulk composites. Journal of Physics: Conference Series, 2010, 253, 012006.	0.3	1
93	Semi-analytical study of AC losses in an infinitely long superconducting cylinder surrounded by a metallic sheath: magnetic field dependent critical current density and generation of harmonics. Superconductor Science and Technology, 2013, 26, 115001.	1.8	1
94	Thin-Film Superconducting Shields. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	1
95	A simple torque magnetometer for magnetic moment measurement of large samples: Application to permanent magnets and bulk superconductors. Review of Scientific Instruments, 2019, 90, 085101.	0.6	1
96	Anisotropy of the thermal conductivity of bulk melt-cast Bi-2212 superconducting tubes. Superconductor Science and Technology, 2020, 33, 025006.	1.8	1
97	Local Structure of Mn in $(La_{1-x}Ho_x)_{2/3}Ca_{1/3}MnO_3$ Studied by X-ray Absorption Fine Structure. Acta Physica Polonica A, 2010, 117, 281-285.	0.2	1
98	Influence of Thermal Treatment on $YBa_2Cu_3O_{7-x}$ Thick Films Prepared by Electrophoretic Deposition on Ni and Ag Substrates. Materials Research Society Symposia Proceedings, 2007, 1001, 1.	0.1	0
99	AC Magnetic Measurements on Superconductors. International Journal on Measurement Technologies and Instrumentation Engineering, 2011, 1, 53-66.	0.3	0
100	Influence of the shielding currents lengthscale and anisotropy effects on the magnetic flux profiles of high-temperature superconductors. Journal of Physics: Conference Series, 2012, 398, 012012.	0.3	0
101	Thermal properties of Ti-doped $Cu\text{-}Zn$ soft ferrites used as thermally actuated material for magnetizing superconductors. Journal Physics D: Applied Physics, 2016, 49, 125004.	1.3	0
102	AC Magnetic Measurements on Superconductors. , 2013, , 208-222.		0