

Publication list  
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(December 22, 2025)

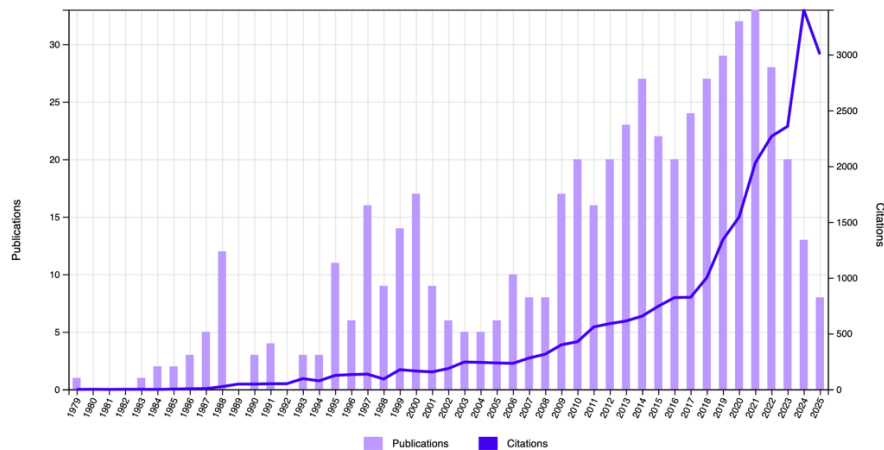
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### Web of Science

Total number of publications in peer-reviewed journals (no proceedings): 612  
h-index: 81; 25.813 citations; number of citations of most relevant papers given in green

Access to the Web of Science list of publications:  
<https://www.webofscience.com/wos/woscc/summary/159d1fd3-bf33-466a-86fd-cf58a45bbc13-0173cbf157/recently-added/1>

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### Google Scholar

Total number of publications listed in Google Scholar: > 970  
h-index: 102; 40.177 citations  
i10-index: 508

<https://scholar.google.de/citations?hl=de&pli=1&user=2S881GYAAAAJ>

### Scholar GPS

[https://scholargps.com/scholars/48534644469618/horst-hahn?e\\_ref=2b3f95adfac360a0b81d](https://scholargps.com/scholars/48534644469618/horst-hahn?e_ref=2b3f95adfac360a0b81d)

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## I. Publications: newest first

2026

- (1) Boltynjuk, E., Mejía, C.P., Kante, M.V., Garzón, C.M., Olaya, J.J., Hahn, H., Velasco, L., Effect of zirconium addition on the microstructure and mechanical properties of TiSiN films by reactive magnetron sputtering at room temperature, **Surface & Coatings Technology** 521 (2026). 133041. <https://doi.org/10.1016/j.surfcoat.2025.133041>.

2025

- (2) J. Roy, A. Das, A. Jana, P. Chakraborty, M. Neumaier, H. Hahn, B. Pathak, M. Kappes, and T. Pradeep, Structural Changes in Atomically Precise Ag<sub>29</sub> Nanoclusters upon Sequential Attachment and Detachment of Secondary Ligands, **ACS Nano** 19 (2025) 5727–5738. <https://doi.org/10.1021/acsnano.4c16413>.
- (3) Hoyos-Sanchez, J.P., Hahn, H., Jha, S.K., Schweidler, S., Velasco, L., A Machine Learning Approach to Determine the Band Gap Energy of High-Entropy Oxides Using UV-Vis Spectroscopy, **Eng** 6 (2025) 340. <https://doi.org/10.3390/eng6120340>.
- (4) Lu, Y.M., Kang, S.J., Salishchev, G., Semenjuk, A., Chen, X., Kübel, C., Hahn, H., Ivanisenko, Y., Segregation, precipitation, and phase decomposition behavior of a carbon-doped non-equiatomic nanocrystalline CoCrFeMnNi high entropy alloy, **Materials Characterization** 229 (2025) 115622. <https://doi.org/10.1016/j.matchar.2025.115622>.
- (5) Bi, Y., Tian, Y., Gong, X., Velasco Estrada, L., Hahn, H., Han, J., Srolovitz, D.J., Pan, X., In-situ Observation of Secondary Grain Boundary Dislocation and Grain Boundary Disconnection Interaction, **Microscopy and Microanalysis**, 31 (7), (2025) 1519–1520. <https://doi.org/10.1093/mam/ozaf048.781>.
- (6) Boltynjuk, E., Bignoli, F., Nandam, S.H., Faurie, D., Welle, A., Kruk, R., Djemia, Ph., Hahn, H., Ivanisenko, Y., Ghidelli, M., Nanocolumnar ZrCu thin film metallic glass with tailored mechanical and electrical properties, **Thin Solid Films** 825 (2025) 140748. <https://doi.org/10.1016/j.tsf.2025.140748>.
- (7) Alsawaf, A., Karkera, G., Diemant, T., Kante, M.V., Schneider, Y., Velsaco, L., Bhattacharya, S.S., Stainer, F., Wilkening, M., Clemens, O., Janek, J., Hahn, H., Botros, M., Influence of In-doping on the structure and electrochemical performance of compositionally complex garnet-type solid electrolytes, **Small Structures** 6 (2025). <https://doi.org/10.1002/sstr.202400643>.
- (8) Xu, R., Lu, Y.M., Dai, Y.T., Debastiani, R., Hahn, H., Ivanisenko, Y., Simultaneous improvement of mechanical strength and electrical conductivity in Al-2.5 wt% Fe alloy rods with high thermal stability by high-pressure torsion extrusion, **Materials Characterization** 224 (2025) 114956. <https://doi.org/10.1016/j.matchar.2025.114956>.
- (9) Zhou, X.C., Chen, X.H., Li, B.X., Zhu, H., Lan, S., Hahn, H., Feng, T., **Journal of Colloid and Interface Science** 690 (2025) 137316. <https://doi.org/10.1016/j.jcis.2025.137316>.
- (10) Pei, Ch., Chen, Sh., Xie, J., Feng, Sh., Yu, M., Zhan, Ch., Qian, Y., Yang, G., Chen, Y., Lan, Si, Kan, E., Wang, Di, Mu, X., Hahn, H., Sun, B., Wilde, G., Feng, T., Strain engineering in gradient-structured metallic glasses for excellent overall water splitting, **Materials Today** (2025). <https://doi.org/10.1016/j.mattod.2025.02.024>.
- (11) Roy, J., Das, A., Jana, A., Chakraborty, P., Neumaier, M., Hahn, H., Pathak, B., Kappes, M.M., Pradeep, T., Structural Changes in Atomically Precise Ag<sub>29</sub> Nanoclusters upon Sequential Attachment and Detachment of Secondary Ligands, **ACS Nano** 19 (2025) 5727-5738. <https://doi.org/10.1021/acsnano.4c16413>.
- (12) Z. Xiao, R. Xie, F. Maccari, P. Klaffen, B. Eggert, Di Wang, Y. Dai, R. Lizárraga, J. Lill, T. Helbig, H. Wende, K. Kummer, K. Ollefs, K.P. Skokov, H. Zhang, Z. Quan, X. Xu, R. Kruk, H. Hahn, O.

Gutfleisch, X. Ye, Voltage-gated 90° switching of bulk magnetic anisotropy in ferrimagnets, **ACS Nano** (2025). <https://doi.org/10.1021/acsnano.4c11663>

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- (13) Y.Y. He, Y.Y. Ting, H.R. Hu, T. Diemant, Y.T. Dai, J. Lin, S. Schweidler, G.C. Marques, H. Hahn, Y.J. Ma, T. Brezesinski, P.M. Kowalski, B. Breitung, J. Aghassi-Hagmann, Printed high-entropy Prussian blue analogs for advanced non-volatile memristive devices, **Advanced Materials** (2024). <https://doi.org/10.1002/adma.202410060>.
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- (16) M.V. Kante, A.R. Lakshmi Nilayam, K. Kreka, H. Hahn, S.S. Bhattacharya, L. Velasco, A. Tarancón, C. Kübel, S. Schweidler, M. Botros, Influence of Zr-doping on the structure and transport properties of rare earth high-entropy oxides, **Journal of Physics: Energy** 6 (2024). <https://doi.org/10.1088/2515-7655/ad423c>.
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- (18) Y.Y. He, S.L. Dreyer, T. Akçay, T. Diemant, R. Mönig, Y. Ma, Y.S. Tang, H.F. Wang, J. Lin, S. Schweidler, M. Fichtner, H. Hahn, T. Brezesinski, B. Breitung, Y.J. Ma, Leveraging entropy and crystal structure engineering in Prussian Blue analogue cathodes for advancing Sodium-ion batteries, **ACS Nano** 18 (2024) 24441-24457. <https://doi.org/10.1021/acsnano.4c07528>.
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- (20) R. Xu, Y.M. Lu, Y.T. Dai, A. Brognara, H. Hahn, Y. Ivanisenko, Processing of high-strength thermal-resistant Al-2.2% cerium-1.3% lanthanum alloy rods with high electric conductivity by High Pressure Torsion Extrusion, **Journal of Mater. Sci.** (2024) 9075-9090. <https://doi.org/10.1007/s10853-024-09713-2>.
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- (47) L. Eiselt, R. Kruk, H. Hahn, A. Sarkar, Hole-doped high entropy ferrites: Structure and charge compensation mechanisms in (Gd<sub>0.2</sub>La<sub>0.2</sub>Nd<sub>0.2</sub>Sm<sub>0.2</sub>Y<sub>0.2</sub>)<sub>1-x</sub>Ca<sub>x</sub>FeO<sub>3</sub>, **Int. J. Appl. Ceram. Technol.** 20 (2023) 213–223. <https://doi.org/10.1111/ijac.14150>.
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### III. Publications in high impact journals

(numbers correspond to list of publications newest first)

**Nature Reviews Materials (Impact factor: 86):** Publication # 15, 24

**Science (Impact factor: 49):** Publication # 14

**Energy & Environmental Science (Impact factor: 31):** Publication # 93, 153, 319, 390

**Advanced Materials (Impact factor: 27):** Publication # 13, 46, 53, 62, 66, 91, 96, 98, 142, 144, 148, 149, 164, 187, 220, 224, 314, 361, 474, 488

**Advanced Energy Materials (Impact factor: 26):** Publication # 40, 74, 269, 279, 391

**Materials Today (Impact factor: 22):** Publication # 10

**Advanced Functional Materials (Impact factor: 19):** Publication # 21, 36, 72, 255, 301, 319, 353

**Nature Communications (Impact factor: 16):** Publication # 71, 76, 116, 117, 184, 206, 238

**ACS Nano (Impact factor: 16):** Publication # 2, 11, 12, 18, 37, 139, 258, 276, 378

**Acta Materialia (Impact factor: 9):** Publication # 26, 54, 65, 68, 95, 107, 112, 134, 150, 183, 198, 217, 221, 288, 292, 312, 313, 379, 444, 601

**Phys. Rev. Letters (Impact factor: 9):** Publication # 119, 131, 537

**Journal of Power Sources (Impact factor: 8):** Publication # 135, 233, 240, 242, 247, 329, 332, 339, 392