New Emergent Materials Driven via Synergetic Extreme Conditions

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Synergetic extreme conditions such as pressure in combination with magnetic field or temperatures can dramatically change the magnetic states of materials leading to emergent phenomena such as novel superconductivity. It originates from the modification of multiple quantum interactions with respect to extreme conditions. Here we introduce our recent progress on the topic of pressure generated superconductivity in the compressed configurations of materials.

References:

[1] Z.W. Li, X.He, CQJ, *et al.* **arXiv** 2103.16917.
[2] W.M. Li, S. Uchida, CQJ, *et al.* J Supercond Nov Magn **33**, 81 (2020).
[3] W.M. Li, J.F. Zhao, CQJ, *et. al.*, PNAS **116**, 12156 (2019).