Dr. Raman Sankar

Name : Dr. Raman Sankar
Current Affiliation : Scientist, Inst. of Physics, Academia Sinica, Taipei, Taiwan
: Visiting Faculty at Center for Condensed Matter Sciences, National Taiwan University, Taiwan
Ph.D : Crystal Growth Centre, Anna University, Chennai, India
Post – Doc : Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan
: Centre for Condensed Matter Sciences, National Taiwan University Taipei, Taiwan
: Crystal growth Centre, Anna University, India
Research Interests :

- Topological phases, quantum magnetism, superconductivity
- Spectroscopies: ARPES, Spin ARPES, TR ARPES
- Resonant/inelastic X-ray scattering, free electron lasers, ultrafast physics
- Crystal growth (optical/IR furnace, Bridgman)
- Materials: Dirac/Weyl semimetals, topological insulators, 2D materials, thermoelectrics
- Quantum matter and strongly correlated electrons

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Brief CV :

Dr. Sankar earned his Ph.D. at Anna University (2008), specializing in nonlinear optical crystal growth. In 2011, he joined Academia Sinica's Institute of Physics, where he now leads research in high-quality single-crystal synthesis for topological and quantum materials. He also collaborates as Visiting Faculty at NTU's Center for Condensed Matter Sciences His lab focuses on discovering and characterizing novel materials like Dirac/Weyl semimetals, topological insulators, superconductors, thermoelectrics, and 2D systems. Techniques include ARPES, X-ray scattering, ultrafast spectroscopy, and advanced crystal growth. Dr. Sankar has co-authored dozens of peer-reviewed papers, achieving over 800 citations across fields including applied materials, condensed-matter physics, and magnetism.

- Wu, Ting-Hsuan, Chih-En Hsu, Rajesh Kumar Ulaganathan, Raman Sankar, Zhenglu Li, Chi-Cheng Lee, Chia-Seng Chang, and Kung-Hsuan Lin. "Anisotropic screening of excitons in van der Waals materials." npj 2D Materials and Applications 9, no. 1 (2025): 37.
- Lee, Suheon, Wonjun Lee, Toni Shiroka, K. Moovendaran, I. Panneer Muthuselvam, Raman Sankar, Eundeok Mun, and Kwang-Yong Choi. "Thermal and field evolution of spin dynamics in the alternating Heisenberg J eff= 1 2 spin chain Sr 2 Co (SeO 3) 3." Physical Review B 111, no. 18 (2025): 184411.
- Polking, Mark J., Haowei Xu, Raman Sankar, Kevin Grossklaus, and Ju Li. "Strong long-wave infrared optical response in a topological semiconductor with a Mexican-hat band structure." Physical Review B 111, no. 8 (2025): 085101.
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