

Long-range magnetic ordering in V-doped WSe₂ semiconductors

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In this talk, the evidence of the long-range magnetic order in V-doped WSe₂ semiconductors will be presented. The magnetic order is detected by using different approaches, from macroscopic to microscopic scales via vibrating sample magnetometer and magnetic force microscopy. Furthermore, electrical measurements on the graphene-VWSe₂-graphene heterostructure devices are performed, which clearly reveals the spin-glass magnetic order. All observed magnetic orders are above room temperature. The mechanism behind the formation of the long-range order will be also discussed and investigated through scanning tunneling spectroscopy and densityfunctional theory.

References

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