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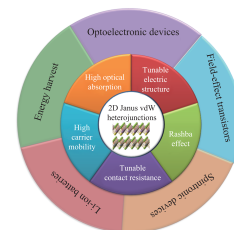
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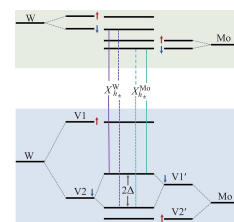
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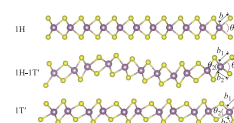
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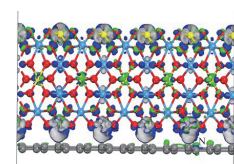
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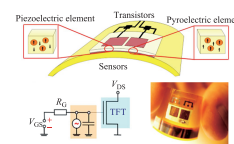
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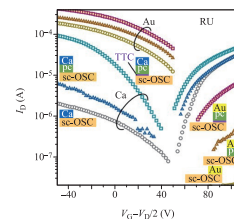
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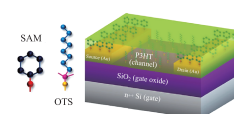
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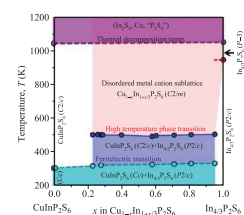
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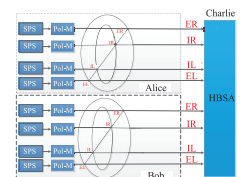
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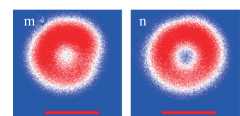
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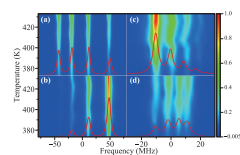
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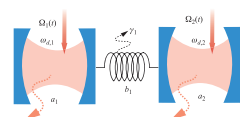
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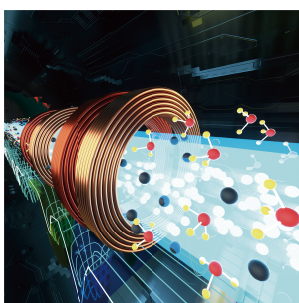
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Zeeman deceleration is widely used for cooling of atoms and molecules. However, further cooling of molecules to ultracold temperature following Zeeman deceleration is always hindered by the low density of the decelerated molecular packet provided by the traditional Zeeman decelerator. Here the authors propose an experimentally viable scheme, which employs a moving magnetic trap to bring a large density of lithium atom and methyl radical into standstill, enabling cold collision studies of the mixed atomic and molecular species inside a magnetic trap, allowing for the investigation of sympathetic cooling of methyl radical by laser-coolable lithium atoms. For more details, please refer to the article entitled “Simultaneous Zeeman deceleration of polyatomic free radical with lithium atoms” by Yang Liu and Le Luo, *Front. Phys.* 16(1), 12504 (2021). [Photo credits: Yang Liu at Sen Yet-Sen University.]