

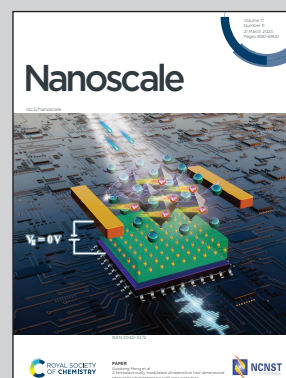
Showcasing research from the NEMS/MEMS and Nano-Materials Laboratory, Ben-Gurion University of the Negev, Israel.

Mechanical modulation of 2D transition metal dichalcogenide alloys

We synthesized $\text{Mo}_{1-x}\text{W}_x\text{S}_2$ nano-drumheads in a diffusion-based alloying process. Then, we studied their mechanical properties via atomic force microscopy force-spectroscopy, Raman analyses, and atomistic simulations, from which we showed that a high concentration of W atoms is associated with high mechanical resistance.

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See Assaf Ya'akovovitz et al., *Nanoscale*, 2025, **17**, 6512.