



UNIVERSITÀ DEGLI STUDI DI SALERNO



Dipartimento di  
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# Electrical conduction and photoconduction in PtSe<sub>2</sub> ultrathin films

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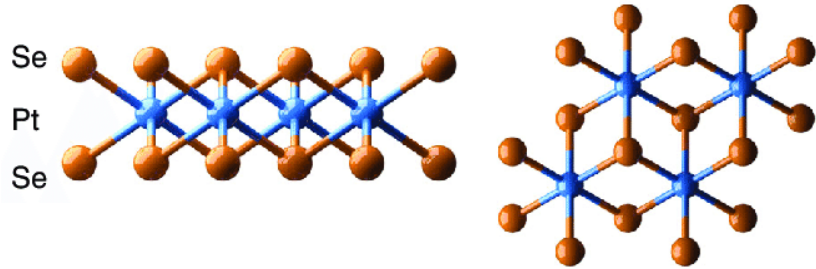
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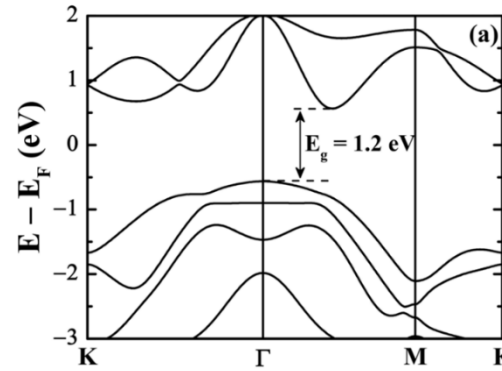
# PtSe<sub>2</sub>: Electrical characterization

3 nm thick

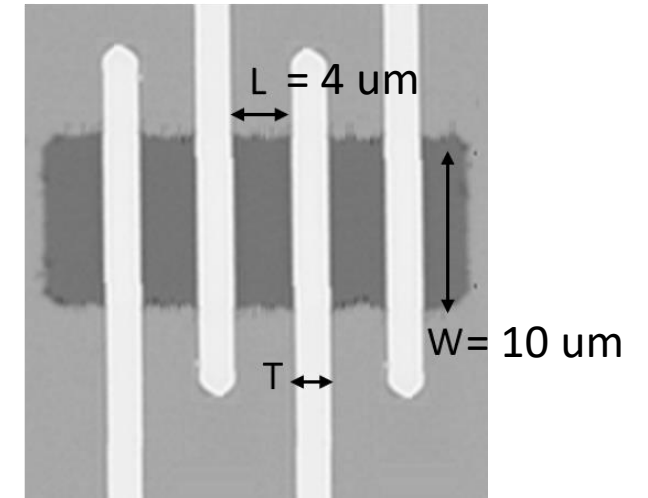


1T phase (octahedral structure)

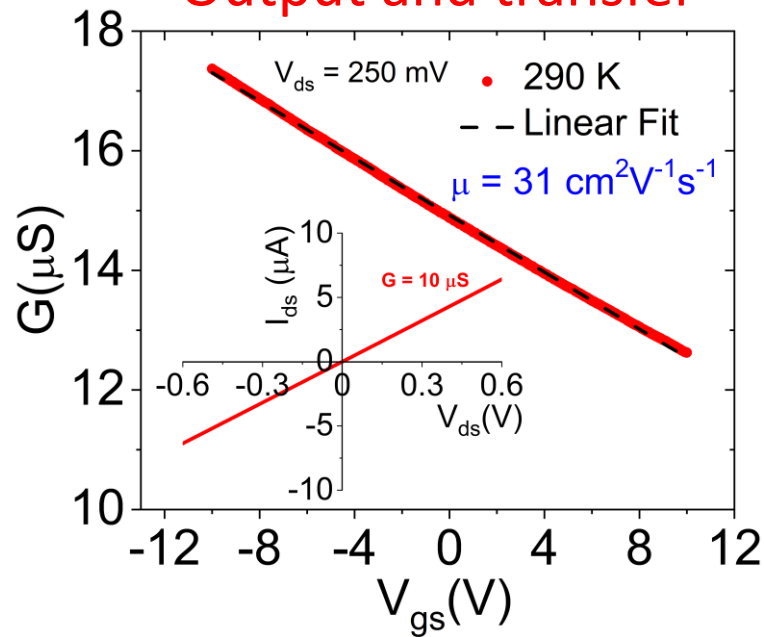
Pt surrounded by six Se atoms



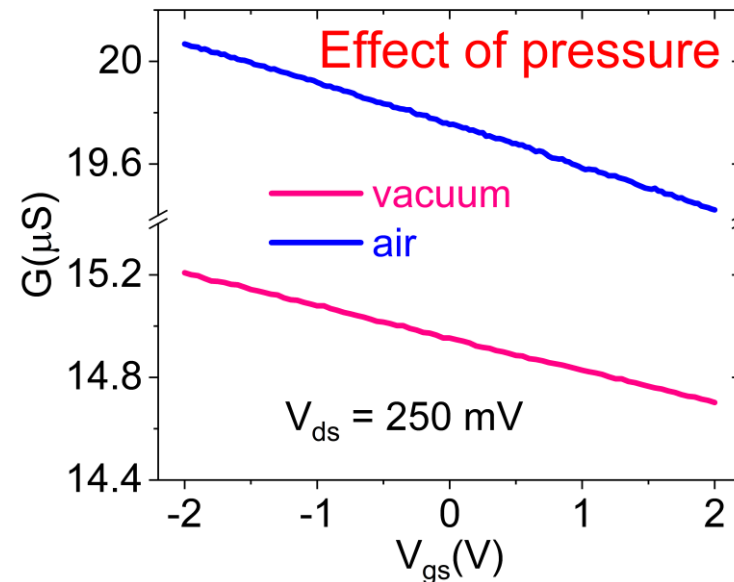
*npj 2D Mater Appl* 3, 33 (2019)



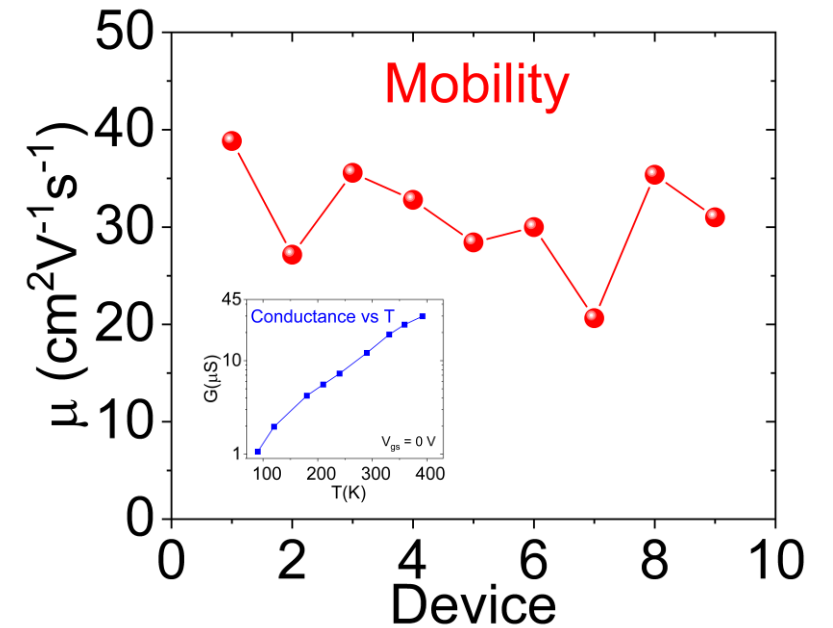
## Output and transfer



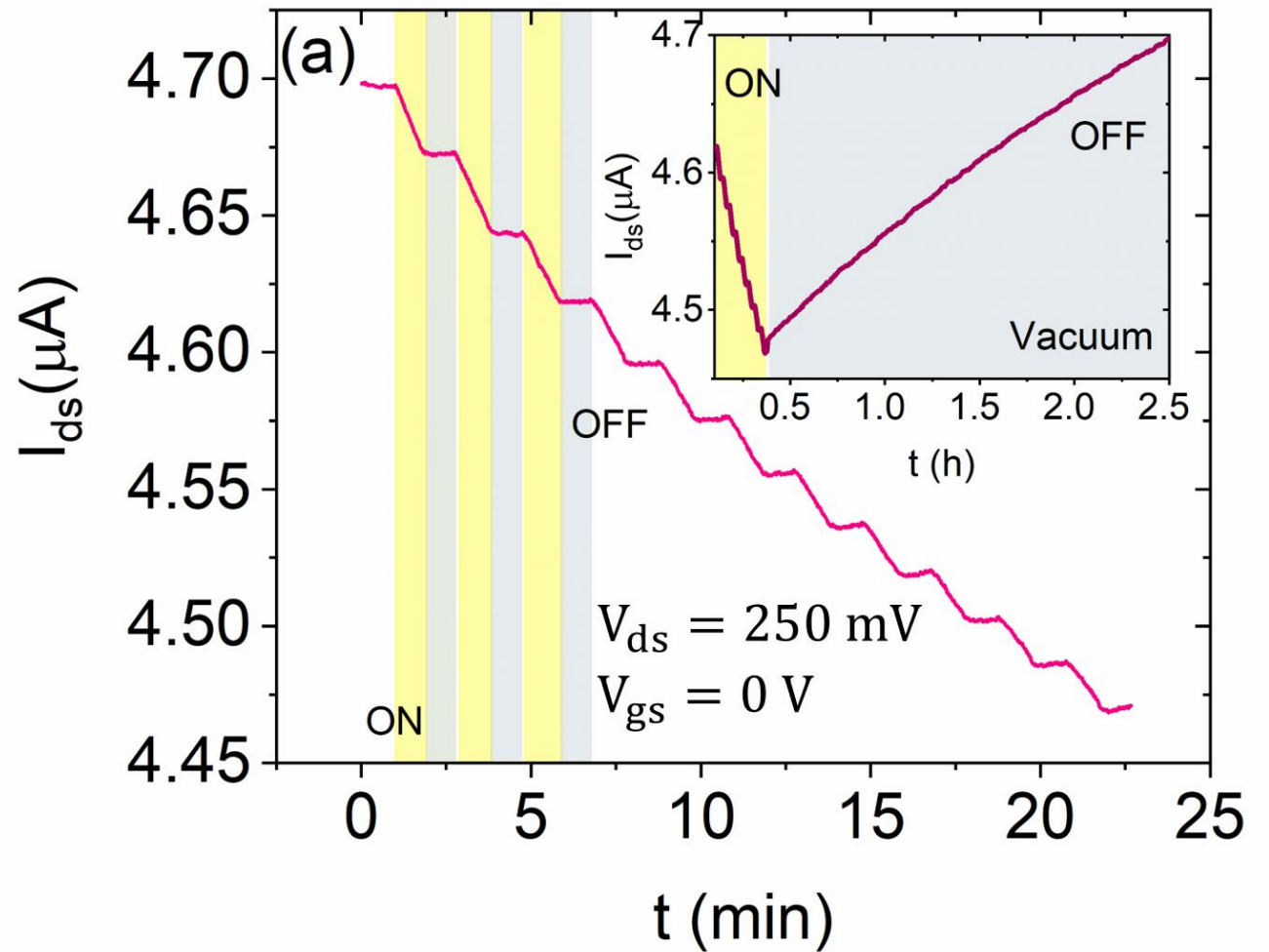
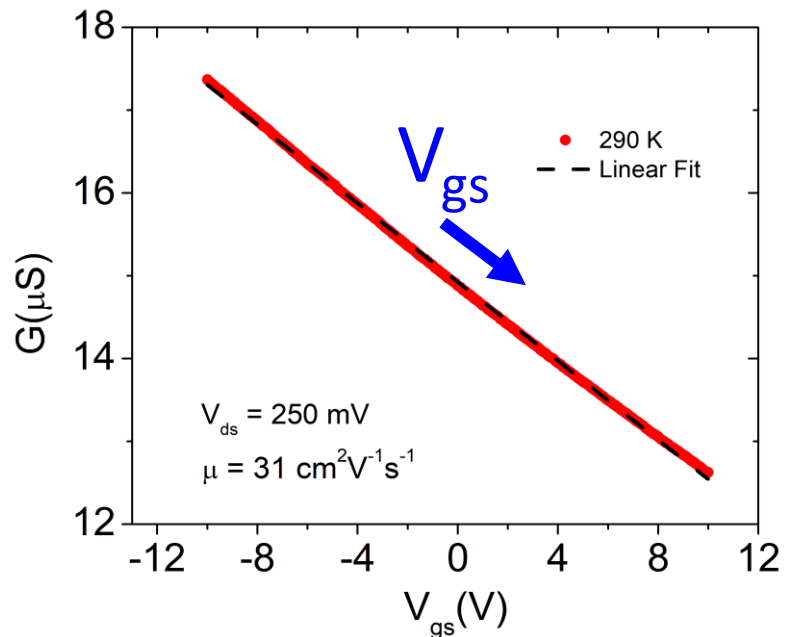
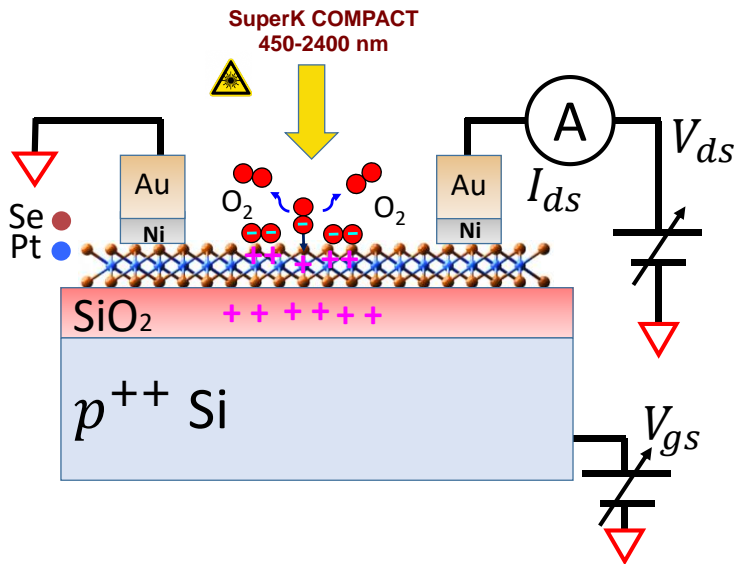
## Effect of pressure



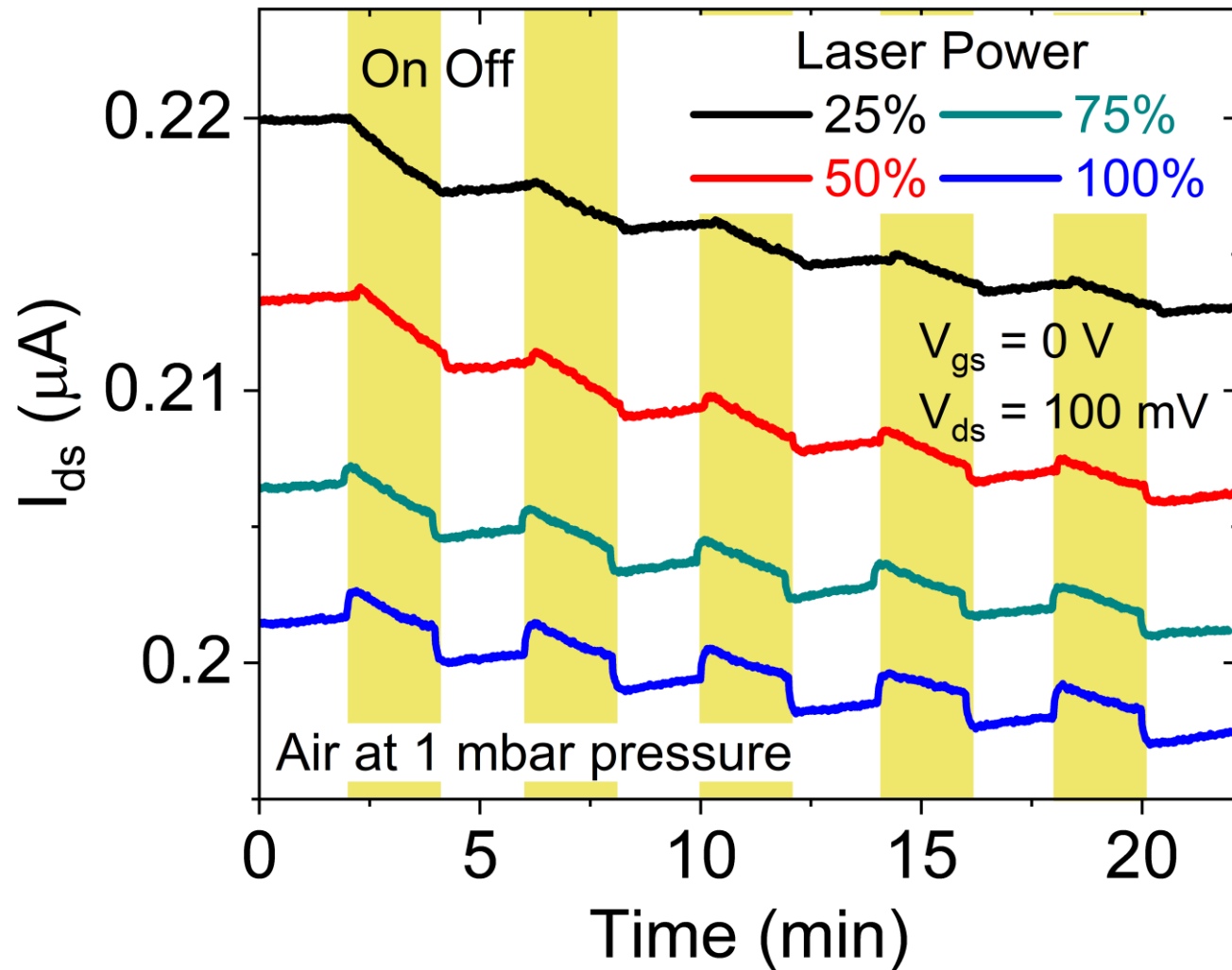
## Mobility



# PtSe<sub>2</sub>: negative photoconductivity



# PtSe<sub>2</sub>: negative photoconductivity



At low pressure and high intensity light, the photoconductive effect appears over the photogating effect.