

mechanical systems. Fluorinated graphene; for example, is transparent but also mechanically strong,^{90,91} so that it could be a good material from which to build high-finesse optomechanical cavities.⁹² Other two-dimensional systems of interest include h-BN, MoS₂, and NbSe₂, which are insulating, semiconducting, and metallic, respectively.^{24,93,94} In general, making mechanical devices out of single atomic layers opens up a wide range of possibilities enabled by the low mass and flexibility of these materials, while different materials will enable tailoring of the optical and electrical properties of the devices. Graphene resonators have already proven that they can be manufactured in large arrays.