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**Suppression of superconductivity in amorphous Mo-Ge films doped with magnetic Gd atoms** HYUNJEONG KIM, KAMDEM THADDEE, ANDREY ROGACHEV — A series of amorphous MoGe-Gd films with thickness in the range 4-60 nm was fabricated by simultaneous co-sputtering from Mo, Ge and Gd targets. The ratio of Mo and Ge was kept constant at $Mo_{79}Ge_{21}$, but the Gd content was varied by changing the power and inclination of the sputtering gun. For undoped films, the critical temperature decreased monotonically with film thickness from 60nm to 4nm. Addition of Gd atoms to the alloy strongly suppressed superconductivity. Remarkably the critical concentration of magnetic impurities, 0.6 at % of Gd, was found to be the same for films with different thickness.

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