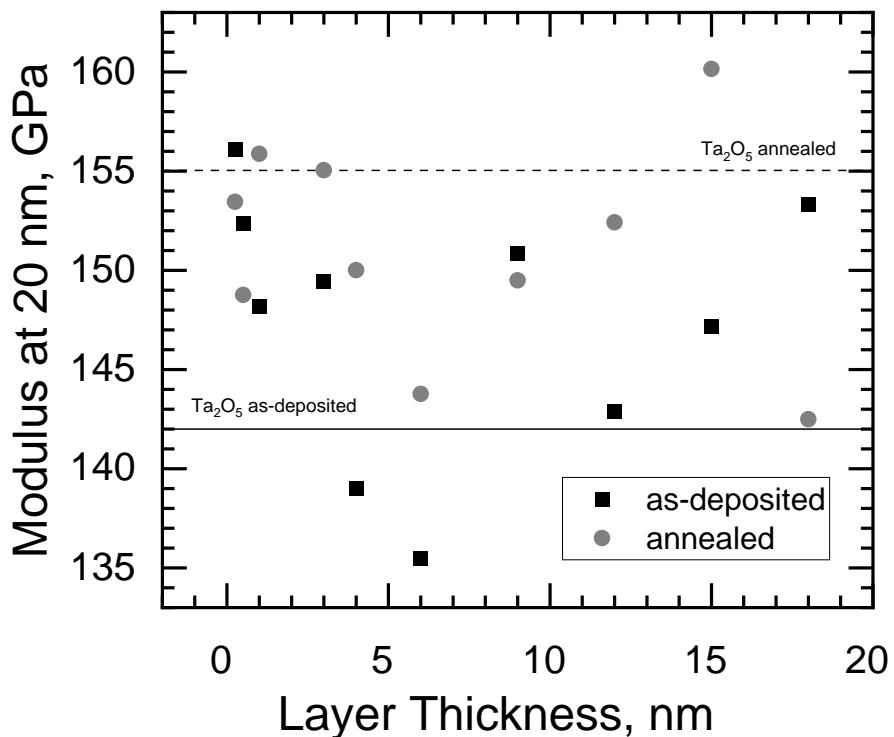


**Figure 1.** Dependence of average hardness, measured at indentation depth of 20 nm, on the constituent layer thickness of as-deposited and annealed  $\text{Al}_2\text{O}_3/\text{Ta}_2\text{O}_5$  multilayers.



**Figure 21.** Dependence of average Young's modulus, measured at indentation depth of 20 nm, on the constituent layer thickness of as-deposited and annealed  $\text{Al}_2\text{O}_3/\text{Ta}_2\text{O}_5$  multilayers.