

THIN-FILM CONVERTER BASED ON $^{10}\text{B}_4\text{C}$ FOR NEUTRON DETECTORS

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A promising material for use as a converter of slow neutrons in large-area detectors are thin-film coatings of boron carbide B_4C enriched with ^{10}B isotope deposited on large-area substrates. Thin-film coatings $^{10}\text{B}_4\text{C}$ on aluminum plates, on aluminum foil, on lavsan films (Mylar) and polyimide films (Kapton) are presented. The results of the study of adhesion, density and structure of $^{10}\text{B}_4\text{C}$ coatings, optical and electrical properties of coatings are presented.