Novel Morphology of Voids in Single-Quasicrystalline Icosahedral ${\rm Al}_{70.5}{\rm Pd}_{21.0}{\rm Mn}_{8.5}$

Y. Waseda, S. Suzuki^a, and K. Urban^b

Institute for Advanced Materials Processing, Tohoku University, Sendai 980-8577, Japan
^a Advanced Technology Research Laboratories, Nippon Steel Corporation, Kawasaki 211-0035, Japan
^b Institut für Festkörperforschung, Forschungszentrum Jülich GmbH, D-52425 Jülich

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This paper deals with the morphology and surface chemistry of faceted voids existing in single-quasicrystalline icosahedral Al_{70.5}Pd_{21.0}Mn_{8.5}. By observation with a scanning electron microscope of surfaces obtained by cleavage of the quasicrystal, the habit planes of the dodecahedral voids were identified. The chemical surface composition of the void surface was determined by Auger electron spectroscopy after cleavage in ultra-high vacuum.

Reprint requests to Prof. Y. Waseda; Fax: 81-22-217-5211.