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The p-and d-electron superconductors -Struggle to find higher-T_c superconductors

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After the discovery of MgB_2, 7 years have already passed, and a new higher-T_c superconductor has now been desired. In this invited session, we review our present status (struggle?) to find higher-T_c superconductors along the following lines. 1) 2-dimensional Cu-oxides having different crystal structures with CuO_2 planes, such as ladders, Lieb model Cu-oxide etc. 2) Metal superconductors including light elements (boron, carbon etc.), being suggested with MgB_2, diamond etc. Recently, we found a new superconductor boron doped SiC which belongs to the same category with boron doped diamond and Si etc. 3) We also present the superconducting properties of the clathrate-type silver oxides $Ag_6O_8AgNO_3$ (T_c=1.04K) and $Ag_6O_8AgHF_2$ (T_c=1.36K).