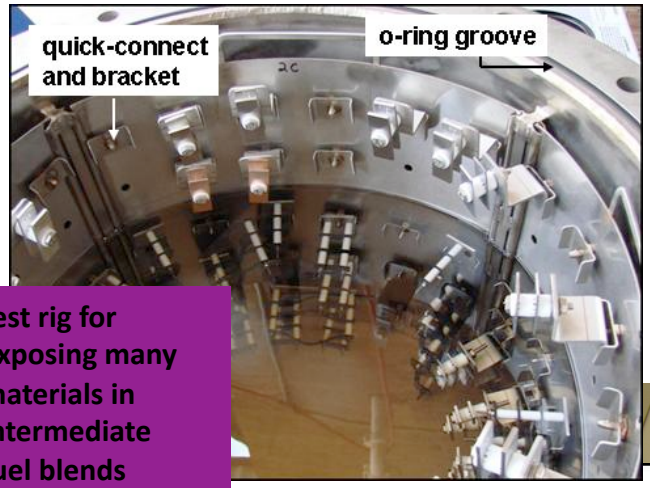
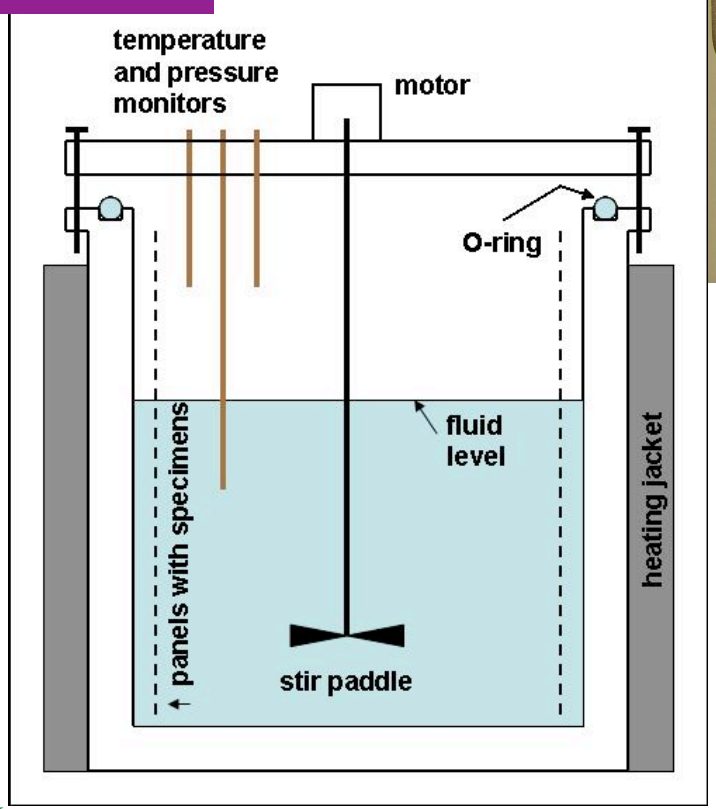


test rig for exposing many materials in intermediate fuel blends



bare metals

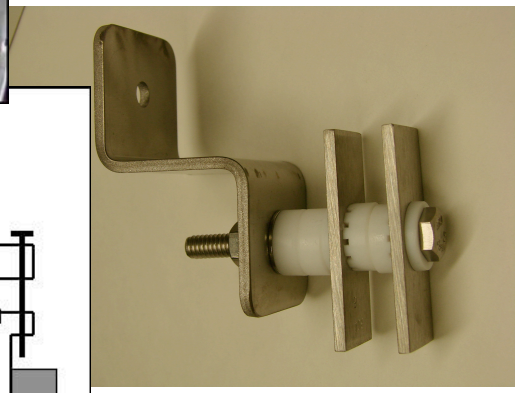
304 stainless steel
1020 carbon steel
1100 aluminum
cartridge brass
phosphor bronze
nickel 201

plated coupons

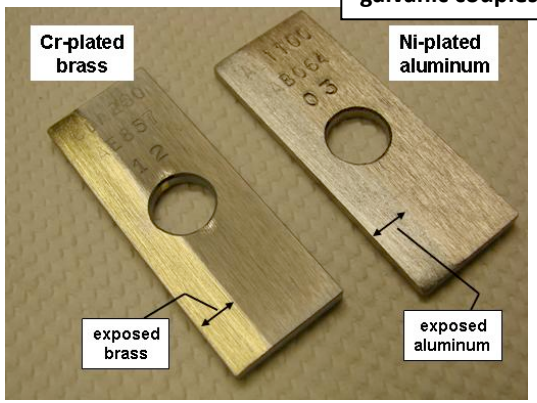
terne-plate (Pb) steel
galvanized (Zn) steel
Cr-plated brass
Cr-plated steel
Ni-plated aluminum
Ni-plated steel

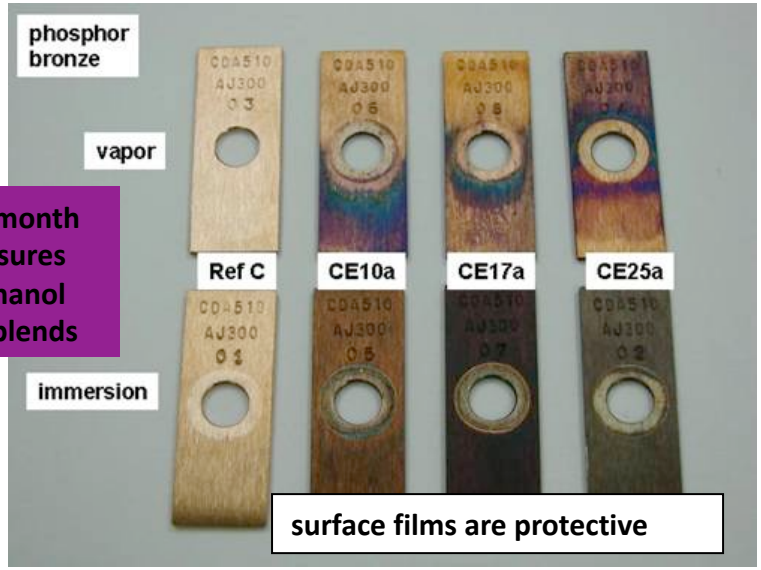
non-metals

elastomers
plastics
pipe dope



galvanic couples





one-month exposures in ethanol fuel blends

surface films are protective

OAK RIDGE National Laboratory