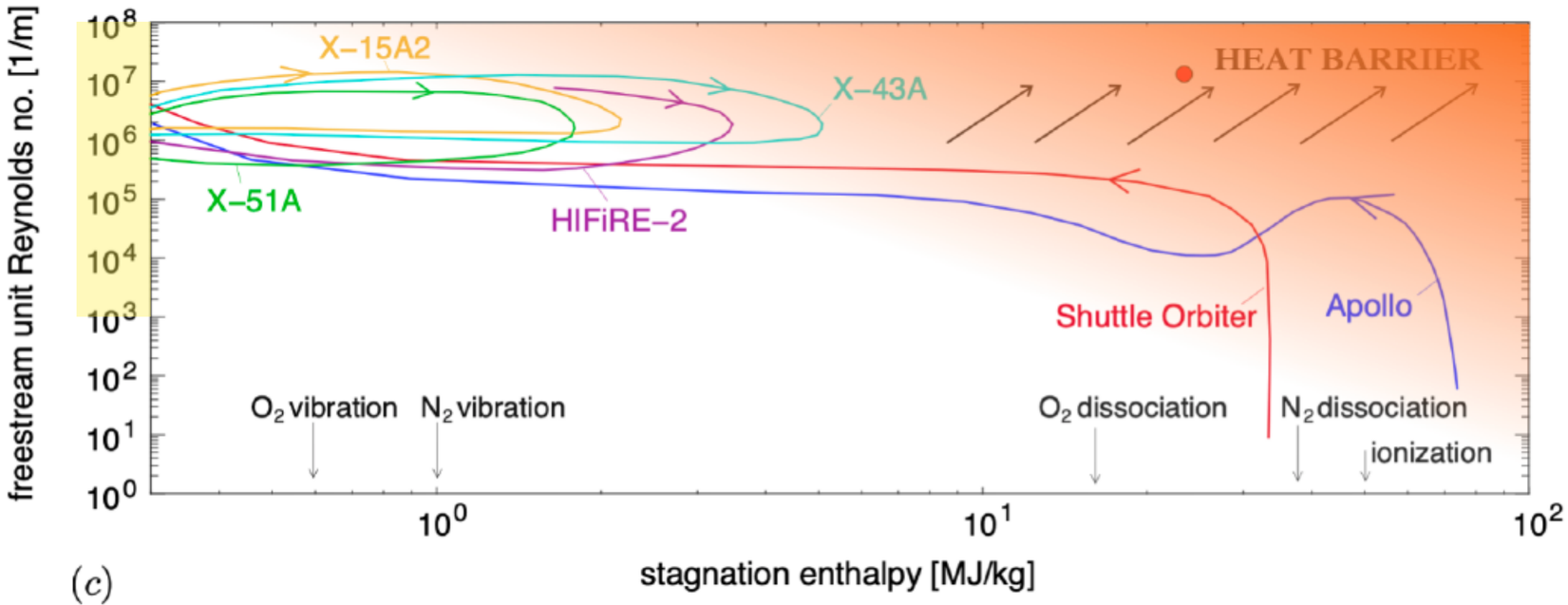
NASA
1
X-43A


X–15A2
X–43A
HEAT BARRIER
X–51A
HIFiRE–2
Shuttle Orbiter
Apollo
O_2 vibration
N_2 vibration
O_2 dissociation
N_2 dissociation
ionization
freestream unit Reynolds no. [1/m]
stagnation enthalpy [MJ/kg]
10^0
10^1
10^2
10^3
10^4
10^5
10^6
10^7
10^8

(c)