

Supplementary Material

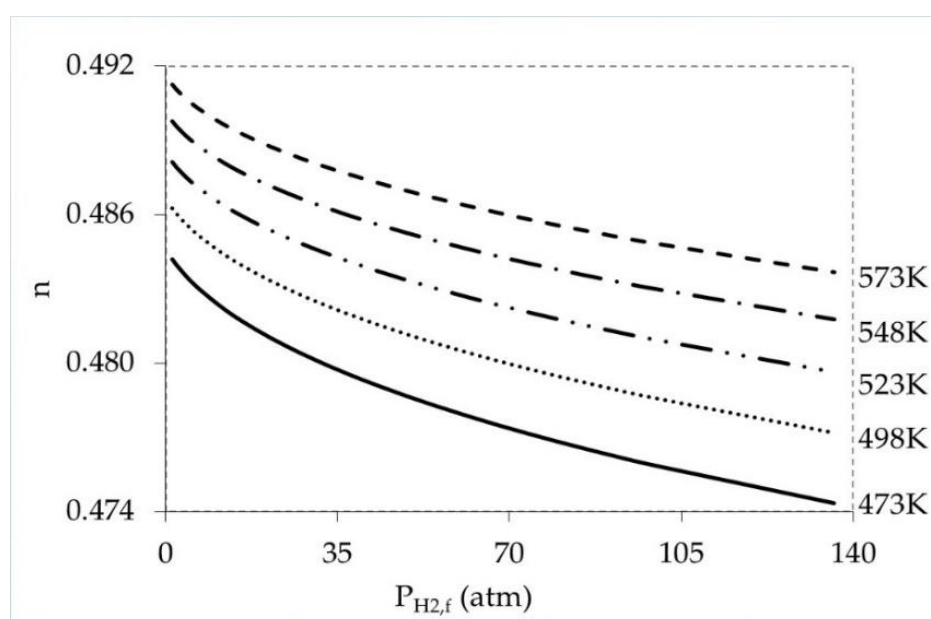
# Assessment of Sieverts Law assumptions and ' $n$ ' Values in Palladium Membranes: Experimental and Theoretical Analyses

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**Figure S1.** Modeling the effect of strong adsorption (high  $P$ ) on pressure exponent ( $n$ ) for temperature range of 473–573 K.

**Table S1.** Operation conditions for  $H_2$  in 25  $\mu m$  thick Pd-1 membrane foil permeability studies.

| Temperature<br>(K) | Partial pressure drop<br>(kPa) | Feed mixture<br>% He in $H_2$ | Feed pressure<br>(kPa) | Permeate pressure<br>(kPa) |
|--------------------|--------------------------------|-------------------------------|------------------------|----------------------------|
| 523                | 21, 62, 117                    | 5–83                          | 221                    | 93                         |