

Surface Energy Data for Nitrocellulose (cellulose nitrate), CAS # 9004-70-0

Source ^(a)	Mst. Type ^(b)	Data ^(c)	Comments ^(d)
Starov, 2007 ⁽²⁸¹⁾	Contact angle	$\theta_W^A = 67^\circ$, $\theta_W^R = 46^\circ$, $d\theta_W = 21^\circ$; no temp cited	Nonporous nitrocellulose substrate.
Starov, 2007 ⁽²⁸¹⁾	Contact angle	$\theta_W^A = 51^\circ$, $\theta_W^R = 7^\circ$, $d\theta_W = 44^\circ$; no temp cited	Porous nitrocellulose membrane, average pore size 0.22 μm .
Starov, 2007 ⁽²⁸¹⁾	Contact angle	$\theta_W^A = 46^\circ$, $\theta_W^R = 7^\circ$, $d\theta_W = 39^\circ$; no temp cited	Porous nitrocellulose membrane, average pore size 3.0 μm .
van Oss, 1987 ⁽¹⁾	Contact angle	$\gamma_s = 45.1 \text{ mJ/m}^2$ ($\gamma_s^{LW} = 44.7$, $\gamma_s^{AB} = 0.4$, $\gamma_s^+ = 0.003$, $\gamma_s^- = 13.9$); no temp cited	Test liquids not known; acid-base analysis, using advancing contact angle data
Wu, 1989 ⁽²⁷³⁾	Contact angle	$\gamma_s = 38 \text{ mJ/m}^2$; 20°C	Test liquids not known.
van Oss, 1989 ⁽⁸⁷⁾	Contact angle	$\gamma_s = 45 \text{ mJ/m}^2$ ($\gamma_s^{LW} = 45$, $\gamma_s^{AB} = 0.0$, $\gamma_s^+ = 0.0$, $\gamma_s^- = 16$); no temp cited	Test liquids not known; acid-base analysis.
Lee, 1999 ⁽¹¹⁶⁾	Contact angle	$\gamma_s = 45.2 \text{ mJ/m}^2$ ($\gamma_s^{LW} = 44.7$, $\gamma_s^{AB} = 0.5$, $\gamma_s^+ = 0.01$, $\gamma_s^- = 10.7$); 20°C	Test liquids: water, alpha-bromonaphthalene, diiodomethane, formamide, and glycerin; acid-base analysis, based on reference values for water of $\gamma^+ = 34.2 \text{ mJ/m}^2$ and $\gamma^- = 19 \text{ mJ/m}^2$.