

TABLE 1 Refractive index properties of amino acids

Amino acid	Molar residue refractivity* (cm ³)	\bar{v} (ml/g) [†]	dn/dc (ml/g) [‡]
Arg	39.47	0.70	0.206
His	34.62	0.67	0.219
Lys	34.10	0.82	0.181
Asp	26.06	0.60	0.197
Glu	30.07	0.66	0.183
Ser	19.16	0.63	0.170
Thr	23.82	0.70	0.172
Asn	26.09	0.62	0.192
Gln	30.37	0.67	0.186
Cys	48.58	0.63	0.206
Gly	12.81	0.64	0.175
Pro	23.74	0.76	0.165
Ala	17.15	0.74	0.167
Ile	31.87	0.90	0.179
Leu	31.59	0.90	0.173
Met	34.45	0.75	0.204
Phe	42.21	0.77	0.244
Trp	55.24	0.74	0.277
Tyr	44.34	0.71	0.240
Val	26.73	0.86	0.172

*From McMeekin et al. (16) (measured experimentally as molar refraction of amino acid from which residue molar refraction was calculated).

[†]From Cohn et al. (34).

[‡]Predicted at 589 nm for hypothetical polypeptide in water with 150 mM NaCl, as described in Materials and Methods.

16. McMeekin, T. L., M. Wilensky, and M. L. Groves. 1962. Refractive indices of proteins in relation to amino acid composition and specific volume. *Biochem. Biophys. Res. Commun.* 7:151–156.
34. Cohn, E. J., and J. T. Edsall. 1943. Density and apparent specific volume of proteins. In *Proteins, Amino Acids and Peptides*. E. J. Cohn and J. T. Edsall, editors. Van Nostrand-Reinhold, Princeton, NJ. 370–381.