TABLE 62.1
A Summary of Studies Performed on the Permeation of Compounds through Human Third-Degree Burn Eschar under the Effects of Permeation Enhancers

Permeant	Dosage Form	Permeation Study Type	Chemical Enhancers	ER	Reference
Chlorhexidine digluconate	Aqueous solution 20%	Microbial and diffusion cells studies	Water, saline, glycerin aq*, DMSO** aq, SDS*** aq, ethanol aq, urea aq, glycine aq, ethyl acetate:ethanol mixture, n-hexane:ethanol mixture, and citral solution in PG****	0.7-0.8	(Manafi et al. 2008)
Silver sulfadiazine	Cream 1%			1.2–1.8	
Nitroglycerin	Aqueous solution (0.5 mg/mL)			1.8- 2.7	
Silver sulfadiazine	Water: acetonitrile: phosphoric acid (82:16:2) solution (0.6 mg/mL)	Diffusion cells studies	water	9.9-19.8	(Sharif Makhmal Zadeh et al. 2010)
Silver sulfadiazine	Water: acetonitrile: phosphoric acid (82:16:2) solution	Diffusion cells studies	Limonene, eucalyptol, α-pinene oxide, and geraniol	4.3-9.0	(Moghimi et al. 2009a)
Clindamycin phosphate	Saturated phosphate buffer solution	Diffusion cells studies	Trypsin	1.5	(Ghaffari et al. 2013)

*** Aqueous solution**
**** Dimethyl sulfoxide**
***** Sodium dodecyl sulfate**
****** Propylene glycol**

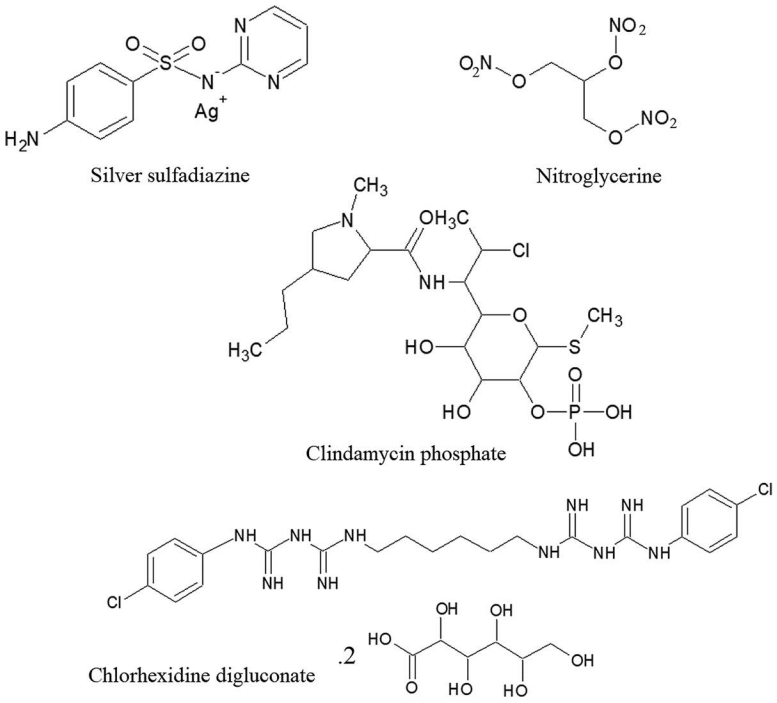

FIGURE 62.1 The chemical structures of permeants used to study permeation through enhancer-treated-burn eschar.