溶剂	试管材料					塞子材料		
	PA	PC	Gla	PS	PMMA	PE-LD	PE-HD	PP
弱酸或稀酸	B	A	A	B	C	A	A	A
强酸或浓酸	C	B	B	B	C	A	A	A
含氧酸，氧化剂	C	C	A	C	C	C	C	C
过氧化氢，30%	A	A	A	A	A	-	B	A
碱基	B	B	A	A	A	A	A	A
可溶性无机盐	-	A	A	A	-	A	A	A
醇类，脂肪族	B	A	A	A	C	A	A	A
甲醇	B	C	A	B	C	A	A	A
乙醇	B	A	A	A	C	A	A	A
丙醇	B	A	A	A	B	-	A	A
丁醇	B	A	A	A	C	A	A	A
异丙醇	B	A	A	A	-	A	A	A
酮类	A	C	A	C	C	B	B	B
醛类	B	B	A	C	B	C	A	A
甲醛	-	A	A	A	A	B	B	A
酯类	A	C	A	C	B	A	B	B
脂肪/油	A	A	A	A	A	A	A	A
矿物油（完全不含芳烃）	A	A	A	A	-	-	A	A
硅油	A	A	A	A	B	-	A	A
石油	-	A	A	A	-	A	A	A
机油	A	A	A	A	A	-	A	A
食用脂/油	-	A	A	A	A	A	A	A
乙醚	A	C	A	C	C	A	B	B
脂肪族碳氢化合物	A	B	A	C	A	A	A	A
丁烷	-	A	A	A	-	-	A	A
环己烷	A	B	A	A	A	B	B	A
庚烷	A	A	A	C	A	B	A	A
己烷	A	B	A	C	-	C	A	B
芳烃	A	C	A	C	C	A	A	B
卤代烃	B	C	A	C	C	A	B	B
其他溶剂								
果汁	A	A	A	A	A	A	A	A
牛奶	A	A	A	A	A	A	A	A
水	A	A	A	A	A	A	A	A
糖浆	A	A	A	A	A	A	A	A

A=抗化学性 B=一定条件下抗化学性 C=不稳定

表3.3： 试管的抗化学性

solvent	cell material					plug material		
	PA	PC	Glass	PS	PMMA	PE-LD	PE-HD	PP
Acids, poor or diluted	B	A	A	B	C	A	A	A
Acids, strong or concentrated	C	B	B	B	C	A	A	A
Acids oxygenating, Oxidant	C	C	A	C	C	C	C	C
hydrogen peroxide, 30%	A	A	A	A	A	-	B	A
Bases	B	B	A	A	A	A	A	A
inorganic salts, solved	-	A	A	A	-	A	A	A
Alcohols, aliphatic	B	A	A	A	C	A	A	A
Methanol	B	C	A	B	C	A	A	A
Ethyl alcohol	B	A	A	A	C	A	A	A
Propanol	B	A	A	A	B	-	A	A
Butanol	B	A	A	A	C	A	A	A
Isopropanol	B	A	A	A	-	A	A	A
Ketones	A	C	A	C	C	B	B	B
Aldehydes	B	B	A	C	B	C	A	A
Formaldehyde	-	A	A	A	A	B	B	A
Esters	A	C	A	C	B	A	B	B
Fats/Oils	A	A	A	A	A	A	A	A
Paraffin oil, pure free of aromatic hydrocarbons	A	A	A	A	-	-	A	A
Silicone oil	A	A	A	A	B	-	A	A
Petrolium	-	A	A	A	-	A	A	A
Motor oil	A	A	A	A	A	-	A	A
edible fat/oil	-	A	A	A	A	A	A	A
Ether	A	C	A	C	C	A	B	B
Hydrocarbon aliphatic	A	B	A	C	A	A	A	A
Butane	-	A	A	A	-	-	A	A
Cyclohexane	A	B	A	A	A	B	B	A
Heptane	A	A	A	C	A	B	A	A
Hexane	A	B	A	C	-	C	A	B
Hydrocarbon aromatic	A	C	A	C	C	A	A	B
Hydrocarbon halogenated	B	C	A	C	C	A	B	B
Further solvents								
Fruit juice	A	A	A	A	A	A	A	A
Milk	A	A	A	A	A	A	A	A
Water	A	A	A	A	A	A	A	A
Sugar syrup	A	A	A	A	A	A	A	A

A= resistant, B= conditional resistant, C= unstable

Table 3.3: Chemical resistance of sample cells