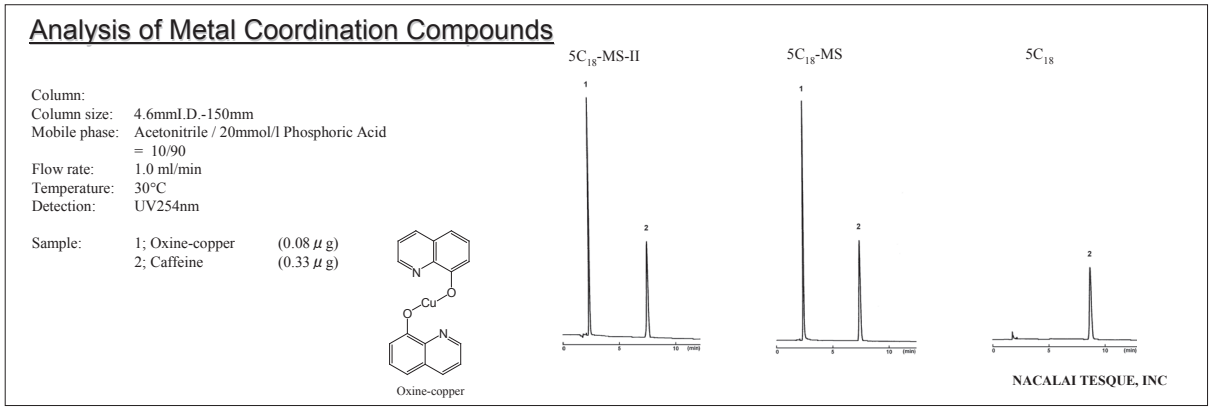
9. Comparison with Old Type COSMOSIL

1) New Type COSMOSIL (5C$_{18}$-MS-II) vs. Old Type COSMOSIL (5C$_{18}$ and 5C$_{18}$-MS)

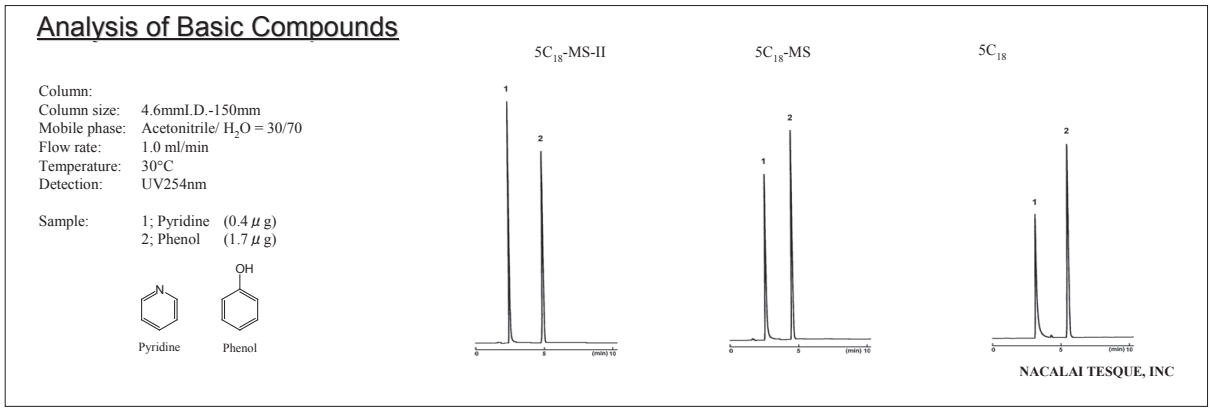
Analysis of Metal Coordination Compounds

The metal coordination compounds, e.g., Oxine–copper, were not eluted from COSMOSIL 5C$_{18}$ because its silica gel contains a high level metal impurities. COSMOSIL 5C$_{18}$–MS or 5C$_{18}$–MS–II can separates the same metal coordination compounds because they are packed with high purity (99.99%) silica gel.



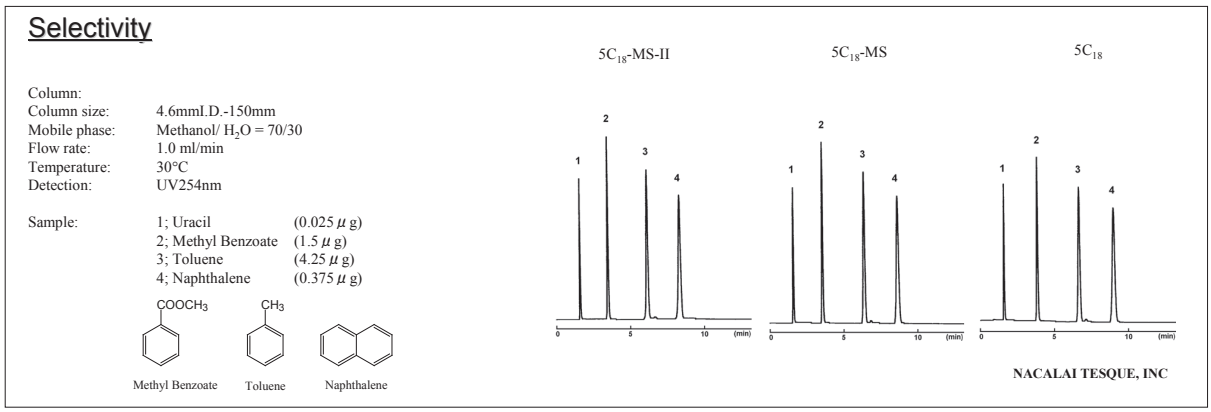
Analysis of Basic Compounds

COSMOSIL 5C$_{18}$–MS–II shows better separation for the basic compounds than COSMOSIL 5C$_{18}$–MS because COSMOSIL 5C$_{18}$–MS–II is treated with improved end–capping.



Selectivity

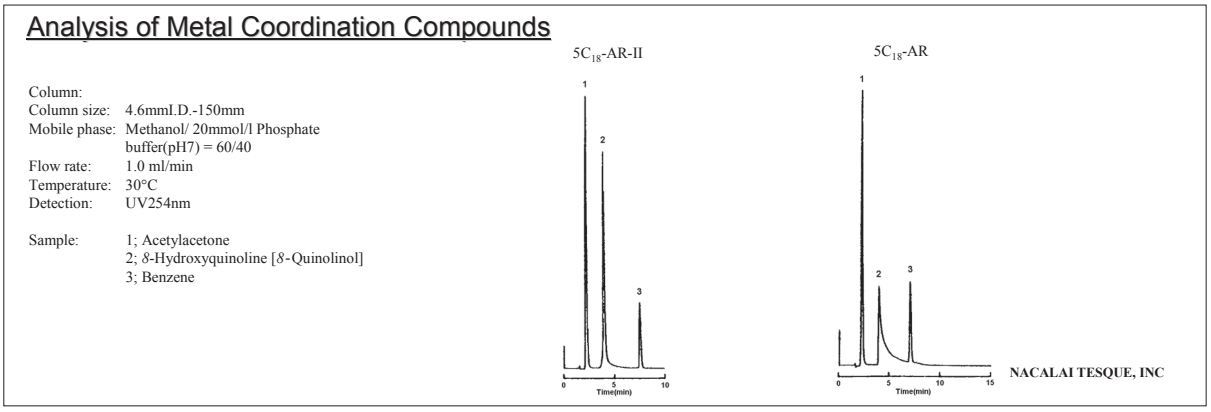
Little difference exists among COSMOSIL 5C$_{18}$, 5C$_{18}$–MS and 5C$_{18}$–MS–II in selectivity. The same analytical condition used for the old type column can be transferred to COSMOSIL 5C$_{18}$–MS–II without any modification.



2) New Type COSMOSIL (5C$_{18}$-AR-II) vs. Old Type COSMOSIL (5C$_{18}$-AR)

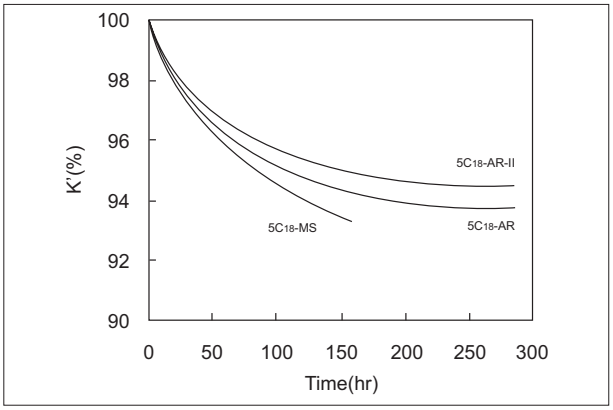
Analysis of Metal Coordination Compounds

COSMOSIL–5C$_{18}$ AR–II shows better separation for the metal coordination compounds e.g., *8*–Quinolinol than COSMOSIL 5C$_{18}$–AR because of the high purity silica gel.



Acid Resistance

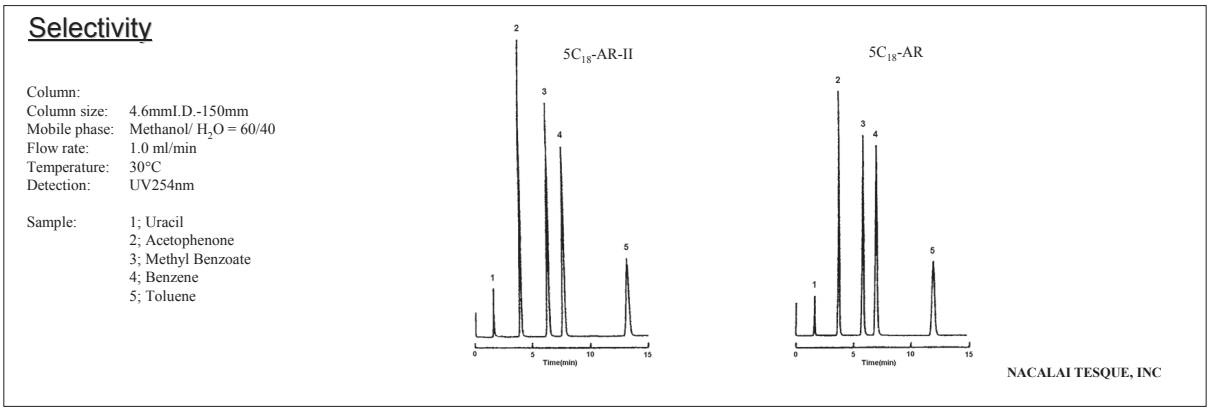
COSMOSIL 5C$_{18}$–AR–II show superior acid resistance to 5C$_{18}$–AR.



Degradation test with 0.1% Trifluoroacetic Acid at 60°C

Selectivity

The selectivity for non–dissociative organic compounds on COSMOSIL 5C$_{18}$ AR–II and COSMOSIL 5C$_{18}$ AR is identical because the carbon content of both columns is the same.



COSMOSIL 5C$_{18}$–MS–II and COSMOSIL 5C$_{18}$–AR–II support the validation.

New Types of COSMOSIL columns are recommended for your new applications.