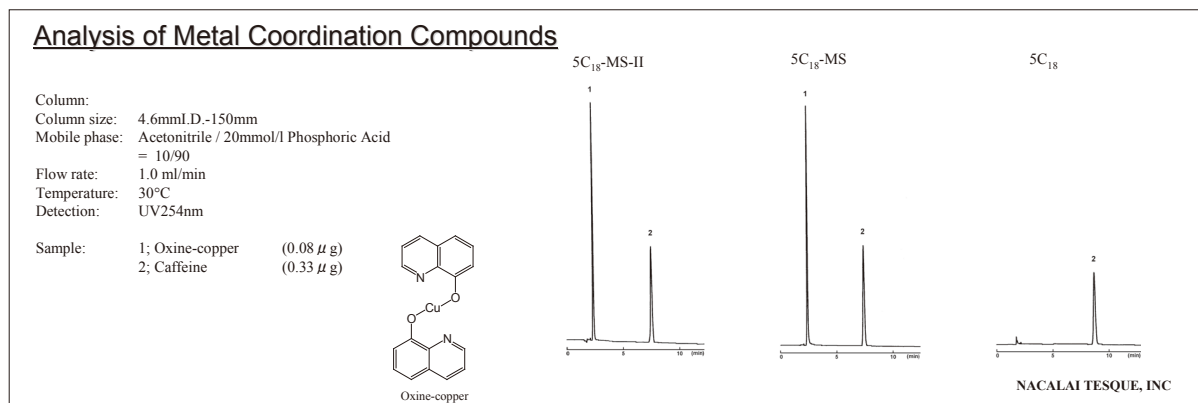
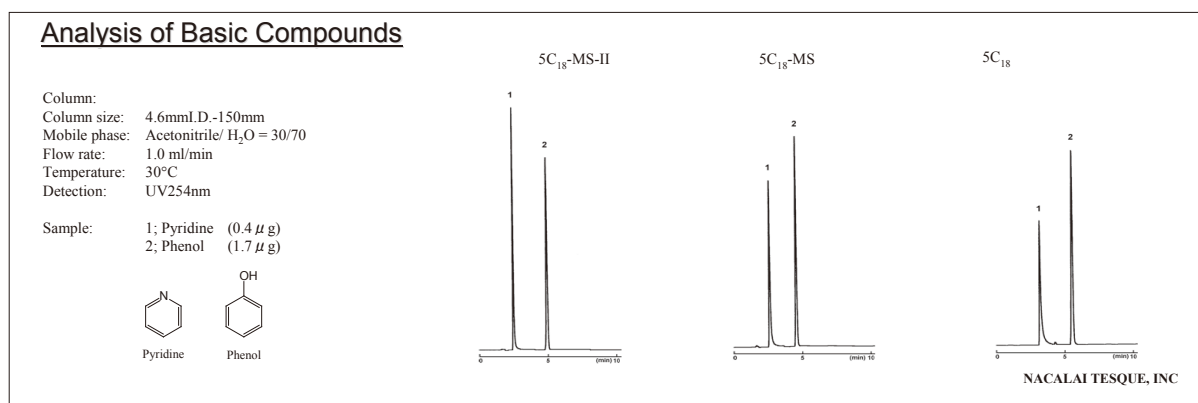


1) New-Type COSMOSIL (5C<sub>18</sub>-MS-II) vs. Old-Type COSMOSIL (5C<sub>18</sub> and 5C<sub>18</sub>-MS)Analysis of Metal Coordination Compounds

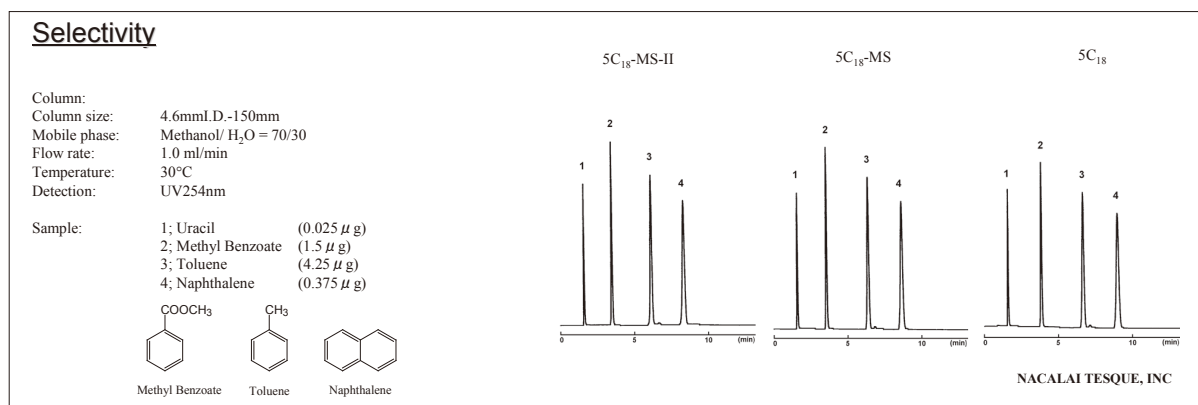
Metal coordination compounds, (e.g., oxine-copper) were not eluted from COSMOSIL 5C<sub>18</sub> because its silica gel contains a high level of metal impurities. COSMOSIL 5C<sub>18</sub>-MS and 5C<sub>18</sub>-MS-II can separate the same metal coordination compounds because they are packed with high-purity (99.99%) silica gel.

Analysis of Basic Compounds

COSMOSIL 5C<sub>18</sub>-MS-II shows better performance for basic compounds than COSMOSIL 5C<sub>18</sub>-MS because the new product is treated with improved endcapping.

Selectivity

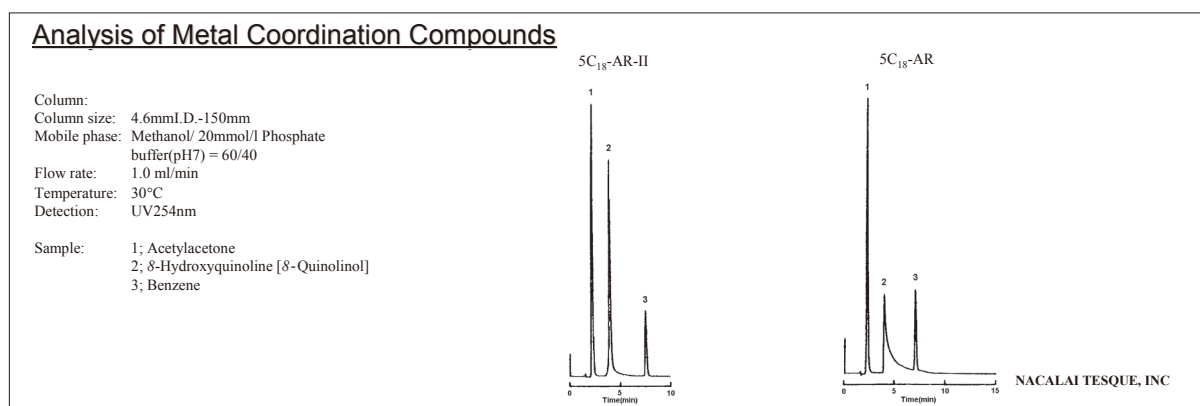
There is little difference between COSMOSIL 5C<sub>18</sub>, 5C<sub>18</sub>-MS and 5C<sub>18</sub>-MS-II regarding selectivity. The same analytical conditions used for the old columns can be transferred to COSMOSIL 5C<sub>18</sub>-MS-II without any modification.



## 2) New-Type COSMOSIL (5C<sub>18</sub>-AR-II) vs. Old-Type COSMOSIL (5C<sub>18</sub>-AR)

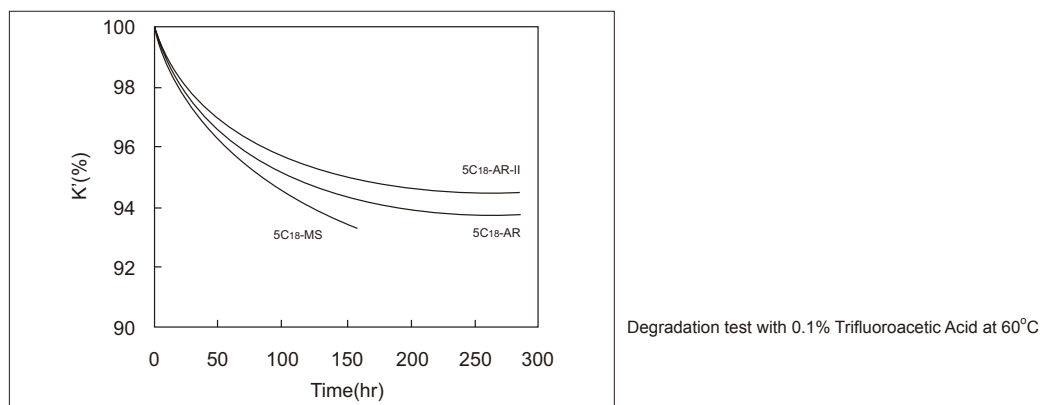
### Analysis of Metal Coordination Compounds

COSMOSIL 5C<sub>18</sub>-AR-II shows better separation for metal coordination compounds (e.g.,  $\delta$ -Quinolinol) than COSMOSIL 5C<sub>18</sub>-AR because of the high-purity silica gel.



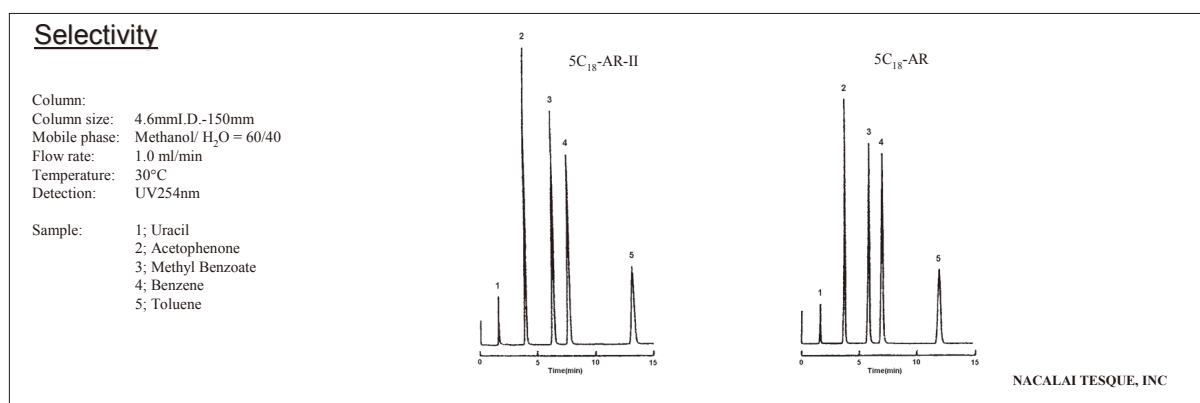
### Acid Resistance

COSMOSIL 5C<sub>18</sub>-AR-II shows superior acid resistance compared to 5C<sub>18</sub>-AR.



### Selectivity

The selectivity for non-dissociative organic compounds on COSMOSIL 5C<sub>18</sub>-AR-II and COSMOSIL 5C<sub>18</sub>-AR is identical because the carbon content of both columns is the same.



COSMOSIL 5C<sub>18</sub>-MS-II and COSMOSIL 5C<sub>18</sub>-AR-II are available in multiple gel lots to support method validation. We recommend using the newest COSMOSIL products for new applications.