R 168

# ANALYTICAL WORK REQUEST

COPIES: WHITE-*File*; YELLOW-*Requester*; BLUE-*Analyst*

| TO | DATE | CHARGE - *Job No.* |
|---|---|---|
| ANALYTICAL CHEMISTRY AND SPECTROSCOPY GROUP<br>ORGANIC RESEARCH | 7/26/63 | 4443 |
| | REQUESTER: Bannister | LOCATION: Lab 206 Sta. 430 |

WORK REQUESTED OR ANALYSIS REQUIRED

GLC

REASON To determine proportions of the various species present.

COMMENTS MCS 198 is a mixed orthosilicate, which possibly might undergo some disproportionation on column packings, especially at higher temperatures.

SAMPLE IDENTIFICATION

① MCS 198 Lot W.15
② MCS 198 Lot W.16
③ MCS 198 Lot W.12
④ MCS 198, T.I/W.3 Composite
⑤ MCS 198, W-Bldg. Bottoms
⑥ MCS 198, W-Bldg. Distillate

DATA FOR SPECTROSCOPY WORK *Include reaction carried out and possible by-products.*

$$SiCl_4 + ROH + R'OH \rightarrow (RO)_4Si + (RO)_3SiOR' + (RO)_2Si(OR')_2 + ROSi(OR')_3 + (RO)Si + HCl\uparrow$$

ROH = isopropanol
R'OH = sec-butanol

DSW 298296

STLCOPCB4068208

*This side to be filled in by analytical chemistry and spectroscopy group*

TYPE OF WORK NEEDED *Check appropriate combination*

☐ CHEMICAL ☐ INSTRUMENTAL ☐ IR ☐ UV ☐ EMISSION

☐ ESTABLISHED METHODS ☐ METHOD DEVELOPMENT ☐ EXPLORATORY

COMMENTS Column - 2M 5% SE-52

ASSIGNED TO

ANALYTICAL REPORT

| | Hot W-15 | W-16 | W-2 | Comp. T1/W-3 | W-Bldg. Bottoms | W-Bldg Dist. |
|---|---|---|---|---|---|---|
| ① | 0.8% | 0.8% | 0.3% | 2.8% | 0.4% | 0.7% |
| ② | 9.9 | 10.5 | 8.8 | 13.1 | 3.8 | 20.1 |
| ③ | 28.0 | 29.2 | 29.5 | 24,3 | 22.3 | 44.9 |
| ④ | 28.0 | 28.2 | 32.4 | 29.3 | 33.4 | 27.7 |
| ⑤ | 11.8 | 11.5 | 15.0 | 14.2 | 17.7 | 6.0 |
| ⑥ | 2.9 | 2.7 | 2.7 | 2.8 | 3.8 | 0.4 |
| ⑦ | | | | | | |
| ⑧ | 3.7 | 3.5 | 2.0 | 1.9 | 3.2 | 0.1 |
| ⑨ | 5.7 | 5.3 | 3.2 | 3.4 | 5.2 | 0.1 |
| ⑩ | 4.7 | 4.2 | 2.7 | 3.0 | 4.5 | 0.04 |
| ⑪ | 2.2 | 1.9 | 1.3 | 1.7 | 2.3 | - |
| ⑫ | 0.8 | 0.7 | 0.4 | 0.7 | 0.9 | - |
| ⑬ | | | | | | |
| ⑭ | 0.5 | 0.5 | 0.4 | 0.6 | 0.6 | - |
| ⑮ | 0.5 | 0.4 | 0.4 | 0.5 | 0.7 | - |
| ⑯ | 0.3 | 0.3 | 0.3 | 0.4 | 0.6 | - |
| ⑰* | 0.2 | 0.2 | 0.7 | 1.3 | 0.7 | - |

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* This figure includes 5 or 6 components.

SIGNATURE G. Gasser DATE 9-17-63

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