Supplementary material.

Figure 1. Selected examples of GC MS spectra of fragmentations of Standard and Unknown products of formamide condensation. For experimental details see Text.
PANEL A-1 (chromatogram sample of the condensation of formamide with ZrO₂)
PANEL A-2

Line# 1  R.Time:11.020(Scan#:2257)  MassPeaks:102
RawMode:Averaged 11.017-11.023(2256-2258) BasePeak:177.10(730536)
BG Mode:Calc. from Peak.

CompName:9H-Purine, 9-(trimethylsilyl)- $S$

Line# 1  R.Time:4.587(Scan#:327)  MassPeaks:39
RawMode:Averaged 4.583-4.590(326-328) BasePeak:152.10(47933)
BG Mode:Calc. from Peak.

CompName:Pyridine, 3-trimethylisoxo- $S$

Line# 1  R.Time:8.107(Scan#:1383)  MassPeaks:31
RawMode:Averaged 8.103-8.110(1382-1384) BasePeak:73.05(24495)
BG Mode:Calc. from Peak.

CompName:2-Butenedioic acid (Z), bis(trimethylsilyl) ester $S$ Maleic acid, bis(trimethylsilyl) ester $S$ Bis(trimethylsilyl) maleate $S$ $M$

```plaintext
CompName:2-Butenedioic acid (Z), bis(trimethylsilyl) ester $S$
CompName:Maleic acid, bis(trimethylsilyl) ester $S$
CompName:Bis(trimethylsilyl) maleate $S$
```
PANEL B-1 (chromatogram sample for the condensation of formamide with $\text{BaZrO}_3$)
Line: 1  R.Time:4.957(Scan#:438) MassPeaks:36
RawMode:Averaged 4.953-4.960(437-439) BasePeak:73.00(36387)
BG Mode:Calc. from Peak

CompName: Acetic acid, [(trimethylsilyl)oxy]- trimethylsilyl ester

Line: 1  R.Time:7.267(Scan#:1131) MassPeaks:58
RawMode:Averaged 7.263-7.270(1130-1132) BasePeak:147.00(35946)
BG Mode:Calc. from Peak

CompName: Urea, N,N-bis(trimethylsilyl)-

Line: 1  R.Time:11.073(Scan#:2273) MassPeaks:133
RawMode:Averaged 11.070-11.077(2272-2274) BasePeak:177.10(3801810)
BG Mode:Calc. from Peak

CompName: 9H-Purine, 9-(trimethylsilyl)- $\delta$

CompName: Acetic acid, [(trimethylsilyl)oxy]- trimethylsilyl ester