

```

##TITLE=Tiny IR Spectrum for Demo
##JCAMP-DX=4.24
##DATA TYPE=INFRARED SPECTRUM
##OWNER= GPL-3 (modified from BRUKER1.JCM (IUPAC) by B. Hanson)
##XUNITS=1/CM
##YUNITS=TRANSMITTANCE
##FIRSTX= 4000.655017
##LASTX= 400.1619262
##DELTAX= -9.64245605E-1
##MAXY= 95.83563804
##MINY= -2.87246704E-1
##XFACTOR= 4.882812500E-4
##YFACTOR= 1.220703125E-2
##NPOINTS= 612
##FIRSTY= 7493

##XYDATA=(X++(Y..Y))
4861896G493jknkJlkJjJ1Kj0kNTjNKJNKm1mKqMnKk0jJKJKTNMNMKJMJJKTJTkM1K1KJ
4729586G542nNjKmJMj1jKmk1T1JkNjMLNTMK1KjmjkjkTl0kmqkqj0oTrj4j3j9k3k818
4611099G336m7o0q2j07j38j73k10k40k62k53k11j55p2K0J09J76K11K28K20J97J70J45J22J01
4563705G025Q6P000N1M4L8L2K8K4K1J7J8J1RTQNMTkMTjNLNMJULJKUJJkTnmkTLTJ00LRMULJM
4453117G637JTLJKTJJLkKL1LjJLKjTMJjLJjK1KL1jKJjJKTJ1jKJT1KTkLTjKJTMJTK
4320808G688JKTkLjJ0kjJTjTKkKUkjLNkmLjL1JK10mjKkMJTTkNKKjJkjLTmKJkKkLJmJL
4186523G715jTKLk1JLkjKJjUKUkJKTl1jKnMJLmNJjUMkLkTUjMKJKjj3J1PnMKLJTKjMkK
4050263G750JjKJTKJqNKJ1K1KTpNM1KK1JUjT0j9J8kjKk1L1KLmMjJNj1j2K01Qj5
3929802G753k9L4Qm0kMnJMkNJTkJKJ1KTmTQkMk4LK3kJ1JNLkLJLMnJKjL18JK71J0MjL1j
3811316G794JkMkMpKkMmTnPj5r1J2Q0k2J7kTjqJ6rPq0mn3L1K3Lm8L3K0j4J3p0jrMTkJ1
##END=

```

Key to the above:

- **Entire File.** Input for *findVariableLists*, as a vector of character strings.
- **Metadata.** Input for *extractParams*, as a vector of character strings.
- **Variable List.** Input for *processVariableList* and *processXYY*, as a vector of character strings.

The entire file is the input to *findVariableLists*. Here are two raw lines from the variable list; each is a character vector of length one:

```
[1] "4861896G493jknkJlkJjJ1K%j0%kNTjNKJNKm1mKq%MnKk%0jJKJKTN%NM%NK%JM%JjKTJTkM1K1KJ"
[2] "4729586G542nNjKmJM%JmMj1jKmk1T%1JkN%jMLN%TMK1%Kj%mkjkTl0kmqkqj0oTrj4j3j9k3k818"
```

The input to *decompLines* and *getComp* is a vector of *named* raw lines:

<pre>"4861896G493jknkJlkJjJ1K%j0%kNTjNKJNKm1mKq%MnKk%0jJKJKTN%NM%NK%JM%JjKTJTkM1K1KJ" "4729586G542nNjKmJM%JmMj1jKmk1T%1JkN%jMLN%TMK1%Kj%mkjkTl0kmqkqj0oTrj4j3j9k3k818"</pre>	Line_17 Line_18
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The input to *unSQZ*, *insertDUPs*, *deDIF* and *yValueCheck* is a *named* list of lines. Each raw line has been split into the individual pieces and named according to its compres-

sion mode:

\$Line_17

NUM	SQZ	DIF	DIF	DIF	DIF	DIF	DIF
"4861896"	"G493"	"j"	"k"	"n"	"k"	"J"	"l"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"k"	"J"	"j"	"J"	"l"	"K"	"%"	"j"
DIF	DIF	DIF	DIF	DUP	DIF	DIF	DIF
"O"	"%"	"k"	"N"	"T"	"j"	"N"	"K"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"J"	"N"	"K"	"M"	"l"	"m"	"K"	"q"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"%"	"M"	"n"	"K"	"k"	"%"	"O"	"j"
DIF	DIF	DIF	DIF	DUP	DIF	DIF	DIF
"J"	"K"	"J"	"K"	"T"	"N"	"%"	"N"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"M"	"%"	"N"	"K"	"%"	"J"	"M"	"%"
DIF	DIF	DIF	DUP	DIF	DUP	DIF	DIF
"J"	"j"	"K"	"T"	"J"	"T"	"k"	"M"
DIF	DIF	DIF	DIF	DIF			
"l"	"K"	"l"	"K"	"J"			

The input to *unDIF* is a character vector with entries named with ASDF mode:

NUM	SQZ	DIF	DIF	DIF	DIF	DIF	DIF
"4861896"	"G493"	"j"	"k"	"n"	"k"	"J"	"l"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"k"	"J"	"j"	"J"	"l"	"K"	"%"	"j"
DIF	DIF	DIF	DIF	DUP	DIF	DIF	DIF
"O"	"%"	"k"	"N"	"T"	"j"	"N"	"K"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"J"	"N"	"K"	"M"	"l"	"m"	"K"	"q"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"%"	"M"	"n"	"K"	"k"	"%"	"O"	"j"
DIF	DIF	DIF	DIF	DUP	DIF	DIF	DIF
"J"	"K"	"J"	"K"	"T"	"N"	"%"	"N"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"M"	"%"	"N"	"K"	"%"	"J"	"M"	"%"
DIF	DIF	DIF	DUP	DIF	DUP	DIF	DIF
"J"	"j"	"K"	"T"	"J"	"T"	"k"	"M"
DIF	DIF	DIF	DIF	DIF			
"l"	"K"	"l"	"K"	"J"			

The input to *repDUPs* is a character vector with length one:

DUP
"T"