

Drawing a Lone Pair on the Nitrogen of Pyridine

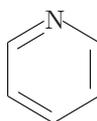
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Question:

The command `\pyridinev{}` gives the following formula:



without a lone pair on the nitrogen of the pyridine ring. How can we draw such a lone pair explicitly?

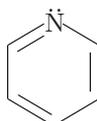
Answer:

Use a more basic command `\sixheterov` in place of the `\pyridinev`. And then the lone pair is drawn by using `\lonepairA` as follows:

```
%setting in the preamble
%\usepackage{xymtexp}
%\usepackage{chmst-ps}
%\verbswitchfalse
```

```
\sixheterov[bdf]{1==\lonepairA[1]{N}}{}
```

This code prints out the following structural formula:



Note that the `\lonepairA` command has been supported by X^YM^TE^X 4.05 or later versions (see the on-line manual [xymtx405A.pdf](#)).

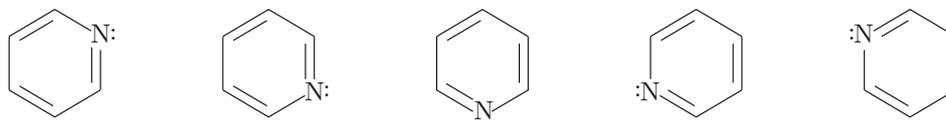
On the same line, other expressions of pyridine rings with a lone pair can be drawn by writing the codes:

```

\sixheterov[bdf]{2==\lonepairA[2]{N}}{}
\sixheterov[bdf]{3==\lonepairA[2]{N}}{}
\sixheterov[bdf]{4==\lonepairA[3]{N}}{}
\sixheterov[bdf]{5==\lonepairA[4]{N}}{}
\sixheterov[bdf]{6==\lonepairA[4]{N}}{}

```

which print out the following formulas:



Further, pyrimidine with lone pairs can be drawn by writing

```

\sixheterov[bdf]{1==\lonepairA[1]{N};3==\lonepairA[2]{N}}{}

```

so as to give the following formula:

