

**RECOMMENDATIONS ADOPTED BY THE  
INTERNATIONAL COMMITTEE FOR WEIGHTS AND MEASURES**

**RECOMMENDATION 1 (CI-2007):**

**Revision of the *Mise en pratique* list of recommended radiations**

The International Committee for Weights and Measures,

**considering** that:

- improved frequency values of molecules in the optical telecommunications region, already documented in the list of standard frequencies, have been determined by femtosecond comb-based frequency measurements;
- frequencies of molecules in the optical telecommunications region have been determined by femtosecond comb-based frequency measurements for the first time;
- frequencies of certain iodine gas-cell absorptions close to the 532 nm optical frequency standard have been determined by femtosecond comb-based frequency measurements for the first time;

**proposes** that the list of standard frequencies be revised to include the following:

- an updated list of frequency values for the  $^{12}\text{C}_2\text{H}_2$  ( $\nu_1 + \nu_3$ ) band at 1.54  $\mu\text{m}$ ;
- the addition of frequency values for the  $^{12}\text{C}_2\text{HD}$  ( $2\nu_1$ ) band at 1.54  $\mu\text{m}$ ;
- the addition of frequency values for the hyperfine components of the P(142) 37-0, R(121) 35-0 and R(85) 33-0 iodine transitions at 532 nm.