

Questionnaire
previous to the 2007 meeting of the
CCL-CCTF Frequency Standards Working Group

Note: Results will be considered only if there is a publication or at least acceptance for publication at the date of the meeting.

1. Have you made absolute frequency measurements of radiations included in the CCL list of recommended radiations (Mise en Pratique 2005)?

Yes No

If yes, please list the values and uncertainties obtained and the methods used and refer to the publication(s) in which they may be found. Please be sure to include measurements made in other laboratories in your country.

- 1.1. If yes, indicate for each one whether you think that any of these measurements should modify the current value and uncertainty already on the list.

Yes No

(add as many lines as necessary)

2. Have you made absolute frequency measurements of radiations included in the CCTF list of secondary representations of the second?

Yes No

- 2.1. If yes, please list the values and uncertainties obtained and the methods used and refer to the publication in which they may be found. Please be sure to include measurements made in other laboratories in your country.

- 2.2. If yes, indicate for each one whether you think that any of these measurements should be proposed as an update of existing value and uncertainty to be considered at the next CCL-CCTF Joint WG meeting just prior to the CCTF (2008/2009).

Yes No

(add as many lines as necessary)

3. Have you made absolute frequency measurements of other radiations not included in these lists?

Yes No

If yes, please list the values and uncertainties obtained and the methods used and refer to the publication in which they may be found. Please be sure to include measurements made in other laboratories in your country.

- 3.1. If yes, indicate if any of these sources should be included in a updated list of “Recommended values of standard frequencies for applications including the practical realization of the metre and secondary representations of the second, and present your arguments for a positive assessment.

Recommended for the MeP:

Yes No

Recommended for secondary representation of the second

Yes No

(add as many lines as necessary)

4. Are you currently developing new frequency sources or are you aware of such sources developed in your country?

Yes No

If yes, please give a brief description of your experiment.

We are developing a neutral Yb optical clock based on the $1S_0-1P_0$ transition with the cold atoms confined in an optical lattice.

At the moment we have:

- realized the vacuum system
- realized and tested the atomic beam
- generated the 399 μm trapping radiation

Work is in progress to generate the 556 μm trapping radiation and the 578 μm clock radiation.

NAME:

...A.GODONE.....
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INSTITUTE: ...ISTITUTO NAZIONALE DI RICERCA METROLOGICA (INRIM)
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