Record Nr. UNINA9910709553003321 Autore Wise Jacquelyn A Titolo A procedure for the effective recalibration of liquid-in-glass thermometers / / Jacquelyn A. Wise Pubbl/distr/stampa Gaithersburg, MD:,: U.S. Dept. of Commerce, National Institute of Standards and Technology, , 1991 Descrizione fisica 1 online resource Collana NIST special publication;;819 Altri autori (Persone) WiseJacquelyn A Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali 1991. Contributed record: Metadata reviewed, not verified. Some fields updated by batch processes. Title from PDF title page. Includes bibliographical references. Nota di bibliografia Sommario/riassunto High quality liquid-in-glass thermometers require only one complete calibration in their lifetime and it is possible to avoid the usual requirement for complete recalibration of the instrument by the recalibration of a single previously calibrated temperature. The need for recalibration of properly manufactured liquid-in-glass thermometers is due to the gradual relaxation of residual mechanical strains in the glass that have a significant effect on the volume of the bulb. The recalibration of a single point provides a reliable indication of the effect of this change in volume and provides a means for the accurate adjustment of the remainder of the scale. The paper describes a procedure for the single temperature recalibration of liquid-in-glass thermometers that can be performed in the user's laboratory and the subsequent adjustment of the entire scale. The adjustment of the scale

that is required by the recent introduction of the new International

Temperature Scale (ITS-90) is also described.