



Diana Tentori

Dr. Tentori studied Physics at UNAM (Universidad Nacional Autónoma de México), she graduated in 1973, obtained Master in Optical Sciences degree at INAOE (Instituto Nacional de Astrofísica, Óptica y Electrónica) in 1975 and PhD in Applied Physics specializing in Optics, at CICESE (Centro de Investigación Científica y Educación Superior de Ensenada, B.C.) in 1990 with research on holographic metrology of optical glass. Dr. Tentori is the first woman obtaining the degree of Doctor in Optics in Mexico.

Dr. Tentori initiated work as researcher in CICESE in 1975 where she continues working. Her research in the field of holographic interferometry includes *Homogeneity testing of optical glass by holographic interferometry* which is part of the volume *Selected papers on Holographic Interferometry: Applications* (2001) published by SPIE. In order to contrast the capacity of the holographic technique she designed with classical techniques, she carried out an analysis of accuracy of minimum deviation refractometry (primary method used to measure refractive index of optical glass). Dr. Tentori's publication *Refractometry by minimum deviation: accuracy analysis* is currently used by metrology laboratories to evaluate new norms, instruments and methods; to support measurement certification; and by scientists developing new optical glasses. Working in fiber optics Dr. Tentori designed techniques to assess residual birefringence of monomode optical fibers that do not require *a priori* hypothesis about the fiber birefringence. These techniques apply to standard optical fibers, rare earth doped fibers and photonic fibers (*Birefringence assessment of single-mode optical fibers*, *Evaluation of the residual birefringence of single-mode erbium-doped silica fibers*). These techniques reveal birefringence changes induced by the mechanical distortion of such fibers (*Birefringence Matrix for a Twisted Single-Mode Fiber: Photoelastic and Geometrical Contributions*, *Jones birefringence in twisted single-mode optical fibers*). Based on this work, she has achieved matching exit with entry polarization states of signals propagating through a fiber (*Use of fiber helical coils to obtain polarization insensitive fiber devices*). Her research is currently focused on the interaction of polarized light with matter in geometry restricted media such as rare earth doped fibers and on the effect of core's anisotropy in the performance of photonic crystal fibers.

Dr. Tentori is member of the Academia Mexicana de Óptica from its foundation