



## CHARLES RIDGELY

**Patent Agent**  
Intellectual Property

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Charles Ridgely is a Patent Agent in the firm's Intellectual Property group, and is focused primarily on patent preparation and prosecution. He has extensive experience preparing patent applications and illustrations for a wide variety of inventions, including medical devices, software, fitness equipment, as well as optical devices.

Prior to joining Rutan & Tucker, LLP, Charles worked for Thienes Engineering, Inc., a civil engineering firm in La Mirada, California, where he gained exposure to cutting-edge GPS-related technology, geodetic surveying software and equipment, and CAD software systems used for commercial land surveying and civil engineering design. Before becoming involved with civil engineering and surveying, he worked as a Patent Scientist for Knobbe, Martens, Olson & Bear, LLP, assisting patent attorneys with the protection of a wide variety of medical devices for foreign and domestic clients. He drafted patent applications and illustrations for inventions relating to a variety of medical conditions and treatments, including blood occlusion devices for bypass surgeries, eye shunts for treating glaucoma, and suturing devices for use after catheter procedures.

Charles has over 15 years of experience researching various scientific topics, and has authored several papers in the American Journal of Physics, the European Journal of Physics, Annalen der Physik (Berlin), as well as Galilean Electrodynamics. He also extensive experience in nearly all areas of automobile mechanics. He received a Master of Science degree in Physics from California State University, Long Beach in 1996, and a Bachelor of Science degree in Physics from California State University, Fullerton in 1994. He is admitted to practice before the United States Patent and Trademark Office.

### Scientific Publications

- "Relativity, thermodynamics and entropic forces," Annalen der Physik (Berlin) 523, 805-812 (2011).
- "Gravitation in Material Media," European Journal of Physics 32, 299-304 (2011).

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- "Archimedes' Principle and Gravitational Levitation," Galilean Electrodynamics 22, 63-67 (2011).
- "Forces in General Relativity," European Journal of Physics 31, 949-960 (2010).
- "Archimedes' Principle in General Coordinates," European Journal of Physics 31, 491-499 (2010).
- "On the Gravitation of Exotic Matter," Galilean Electrodynamics 19, 118-120 (2008).
- "Gravitation and Forces Induced by Zero-Point Phenomena," Galilean Electrodynamics 19, 37-39 (2008).
- "Can Zero-Point Phenomena Truly be the Origin of Inertia?" Galilean Electrodynamics 15, 91-93 (2004).
- "A Macroscopic Approach to the Origin of Exotic Matter," Galilean Electrodynamics 15, 31-34 (2004).
- "Inertia: A Purely Relativistic Phenomenon," Galilean Electrodynamics 13, 15-18 (2002).
- "On the Origin of Inertia," Galilean Electrodynamics 12, 17-20 (2001).
- "On the Nature of Inertia," Galilean Electrodynamics 11, 11-15 (2000).
- "Applying Covariant Versus Contravariant Electromagnetic Tensors to Rotating Media," American Journal of Physics 67, 414-421 (1999).
- "Applying Relativistic Electrodynamics to a Rotating Material Medium," American Journal of Physics 66, 114-121 (1998).

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## Education

- California State University, Long Beach (M.S., 1996)
- California State University, Fullerton (B.S., 1994)

## Memberships & Associations

United States Patent & Trademark Office