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The Presence of the Chromosphere: Evidence for a Liquid Model of the Sun PIERRE-MARIE ROBITAILLE, The Ohio State University — Critical Opalescence occurs at the critical point. It is that point in the phase diagram where the transition between liquid and gas is no longer discernable. In the laboratory, critical opalescence occurs as the meniscus disappears. There is often strong scattering of light and a transparent solution becomes cloudy. In approaching the critical point gases slowly begin to gain order as they prepare to enter the condensed state. In this presentation, it will be advanced that the Chromosphere of the Sun represents matter at the critical point. As such, the Chromosphere experiences a unique combination of temperature, pressure and gravity wherein the gaseous matter in the corona is preparing to condense onto a liquid photosphere. It is consequently stated that the very existence of the Chromosphere, constitutes a powerful piece of evidence in favor of condensed models of the Sun (http://www.arxiv.org/html/astro-ph/0410075 [1]). Additional evidence for a liquid plasma model of the Sun will also be presented.

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