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Ilseop Han* (ihan@math.csusb.edu), Department of Mathematics, California State University, San Bernardino, 5500 University Parkway, San Bernardino, CA 92407-7119, and **Darrell Haile** and **Adrian R Wadsworth**. *Relative Brauer Groups of Function Fields of Binary Cubic Forms*.

Let k be a field whose characteristic is not equal to 2 or 3. Let C be the curve of a binary cubic form and $k(C)$ the function field of the curve C . In this paper, we explicitly describe the relative Brauer groups $Br(k(C)/k)$ of $k(C)$ over k . For this, we show that every algebra in $Br(k(C)/k)$ is a cyclic algebra which can be obtained by taking one of a finite number of the y -coordinates of k -rational points on the Jacobian of the curve C . In particular, we provide specific examples of relative Brauer groups for $k = \mathbb{Q}$, the rationals, and for $k = \mathbb{Q}(\omega)$ where ω is a primitive third root of unity. (Received September 27, 2005)