



**Figure 8.5.** Laser profiles and post-bleach fluorescence distribution. (A) Graphs of each component in  $C(x,y,0) = C_i \exp(-\alpha TI(x,y))$  for a Gaussian laser profile. (Aa) and (Ab) are graphs of  $z = e^{-\alpha TI(x,y)}$  and  $z = C_i$ , and (Ac) represents  $C(x,y,0) = C_i \exp(-\alpha TI(x,y))$ , of which a cross-section is shown in (Ad). (A1) shows each component of  $F(x,y,0) = qI_e(x,y)C(x,y,0)$ , where (A1a) and (A1b) are graphs of  $z = qI_e(x,y)$  and  $z = C(x,y,0)$ . (A1c) and (A1d) represent  $F(x,y,0) = qI_e(x,y)C(x,y,0)$  and the cross-section of  $F(t) = q \iint_{\mathbb{R}^2} I_e(x,y)C(x,y,t) dx dy$ . Exactly the same is true for columns (B) and (B1) for the uniform circle profile laser. (Ba)  $z = -\alpha TI(x,y)$ . (Bb)  $z = C_i$ . (Bc)  $C(x,y,0) = C_i \exp(-\alpha TI(x,y))$ . (B1a)  $z = qI_e(x,y)$ . (B1b)  $z = C(x,y,0)$ . (B1c)  $F(t) = q \iint_{\mathbb{R}^2} I_e(x,y)C(x,y,t) dx dy$ . Finally, (Bd) is the cross-section of (Ba)–(Bc) and (B1d) is the cross-section of the integral  $F(t) = q \iint_{\mathbb{R}^2} I_e(x,y)C(x,y,t) dx dy$ .