

Effective Figure Captions for Technical Documents

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- Figure captions are placed *below* the figure and aligned according to the journal's style

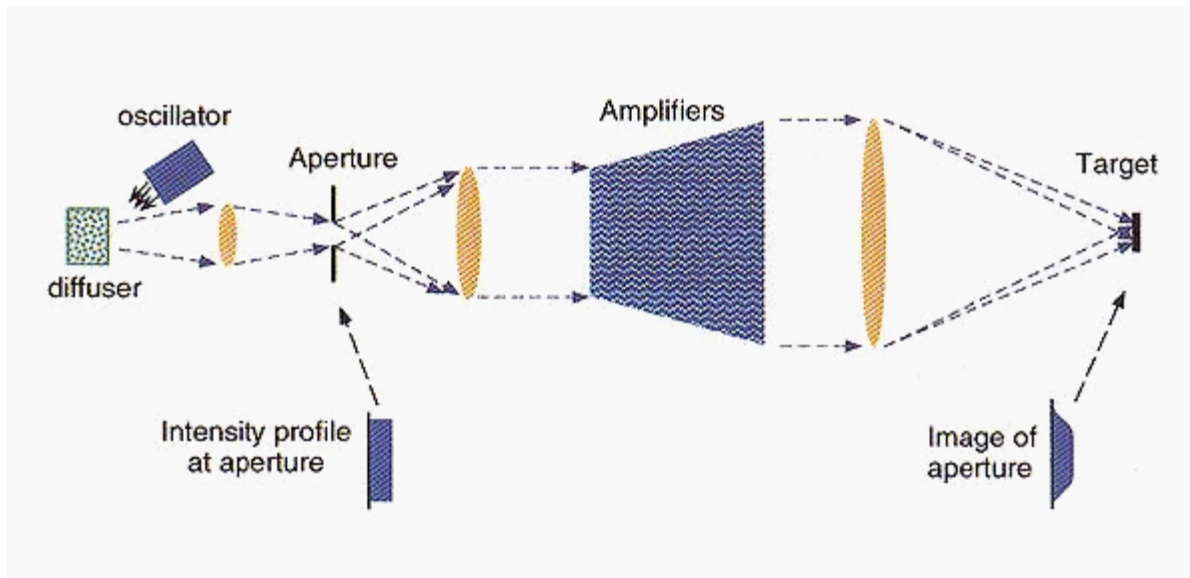
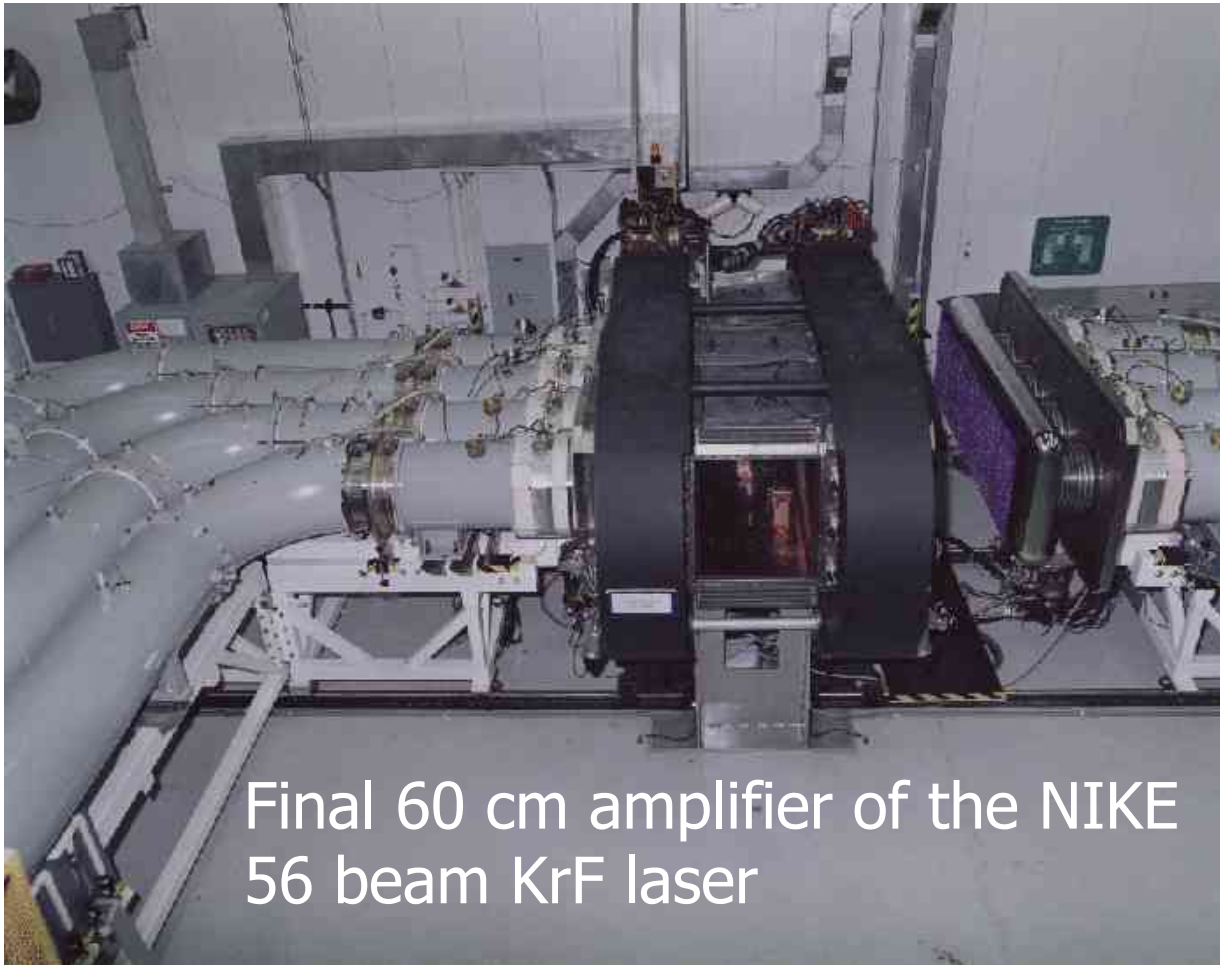


Figure 1. ISI is a fine optical system that images the uniform aperture onto the target. If the optical distortion of the system is small compared to the size of the focal spot image, then the profile shape will be only slightly distorted, when averaged over relevant hydrodynamic time scales.

(Courtesy U.S. Naval Research Laboratory)

- So that it can be copy edited, the caption should not be incorporated into the artwork



Final 60 cm amplifier of the NIKE
56 beam KrF laser

(Image courtesy U.S. Naval Research Laboratory)

- Provide a clear and complete description of all elements of the figure without referring to material in the text

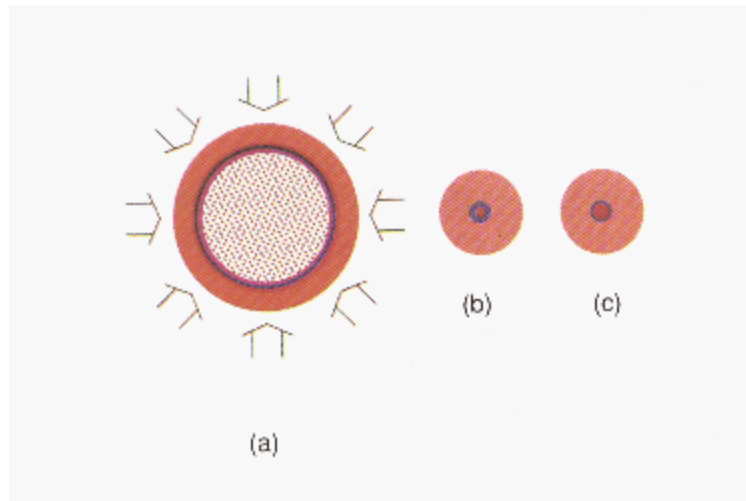


Figure 2. The basic concepts of laser fusion: (a) Laser beams symmetrically heat the outside of a pellet to a temperature ~ 2 keV, generating pressures of ~ 50 MBar. The inner part of the pellet shell is kept on a low isentrope at a few eV. The hot corona drives the cold shell inward like a rocket. (b) The cold fuel is compressed into a small, high-density shell of ~ 500 g/cc surrounding a central hot-spot "ignitor" fuel at ~ 50 g/cc; the ignitor is self-heated by the alpha particles. (c) A burn wave then propagates through the remaining cold fuel. (Courtesy U.S. Naval Research Laboratory)

- If a figure is taken from another source, it should be referenced in the caption and used only with permission

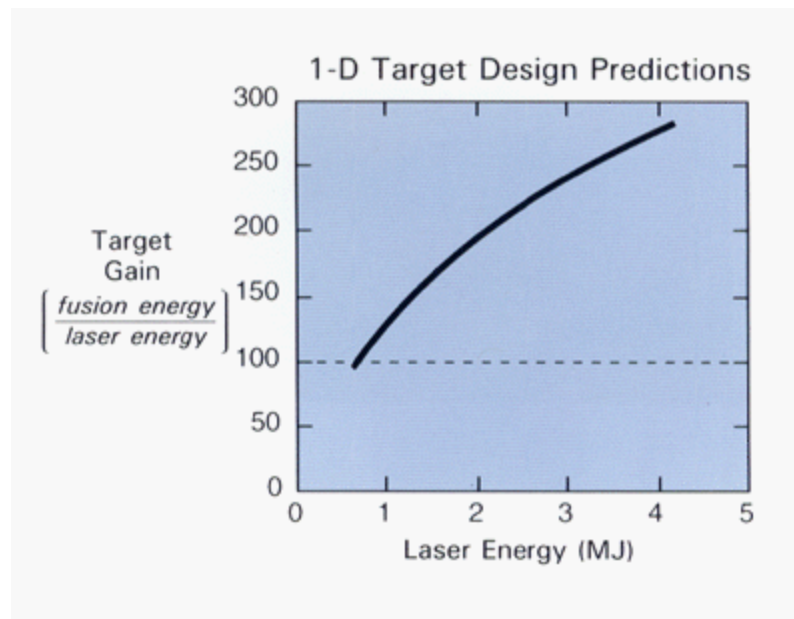


Figure 3. The 1-D spherical target designs at NRL predict target gains of 100–300 for a few-MJ laser. This gain curve is an upper bound on possible target performance. A gain of at least 100 is required for fusion-reactor applications. (Courtesy U.S. Naval Research Laboratory)



- The caption should draw the reader's attention to salient features of the figure and briefly state the importance of these features

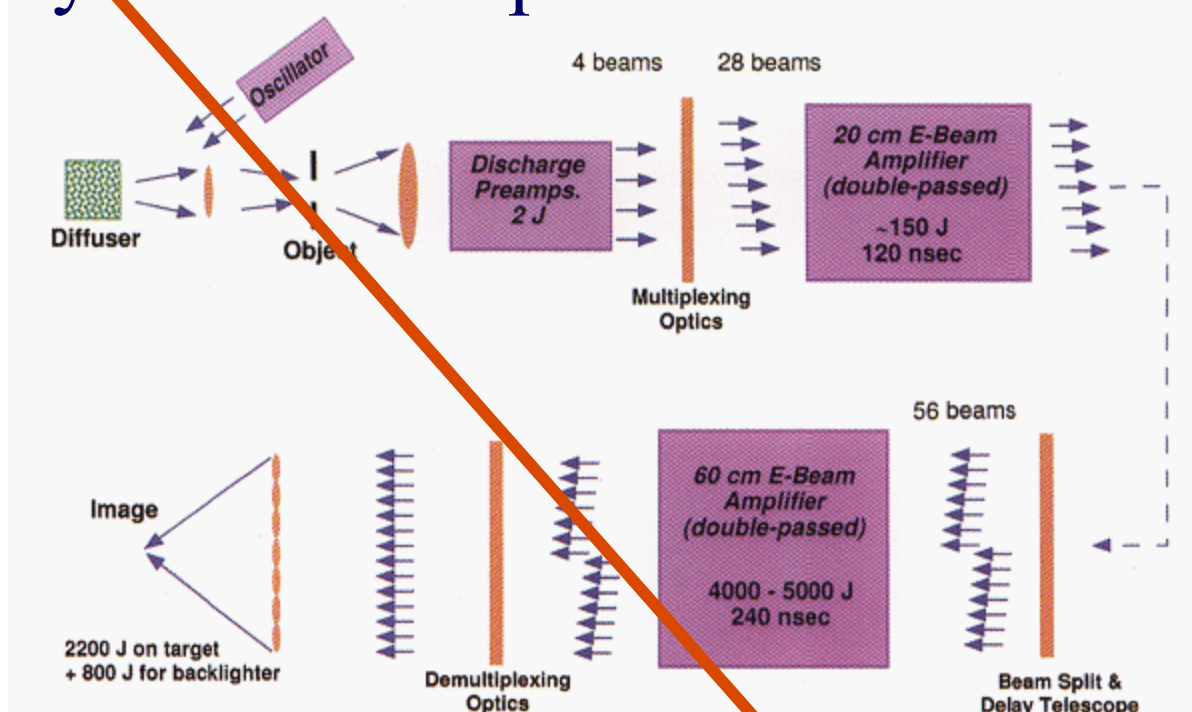
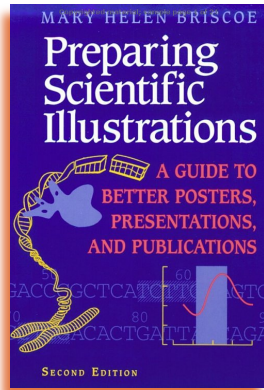


Figure 4. The Nike laser beam amplifier system. The system uses both discharge preamplifiers and E-beam pumped amplifiers. Because the E-beam amplifiers have a long pulse duration, the laser beams are “multiplexed” into 56 separate beams that pass through the amplifier successively and are then recombined onto the target. Forty-four of the beams are used for target acceleration and 12 to produce a backlighter for target diagnostics. (Courtesy U.S. Naval Research Laboratory)

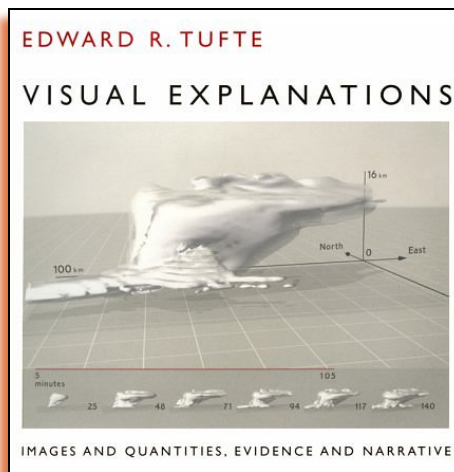
- Figures should be numbered consecutively in the order of their appearance in the text
- Use Arabic numerals and the word “figure” to denote figures and captions, e.g., **Figure 1**, **Fig. 23**
- “Figure” should be capitalized when combined with a numeral to form the title of a specific figure
 - ❖ “Temperature variation is shown in Fig. 3.”
 - ❖ “The figure clearly shows the temperature variation with elapsed time.”



Recommended Reading



Mary Helen Briscoe, *Preparing Scientific Illustrations*, 2nd ed. (New York, Springer, 1996).



Edward R. Tufte, *Visual Explanations: Images and Quantities, Evidence and Narrative* (Cheshire, CT, Graphics Press, 1997).

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