



FIGURE 1.13 A 12-inch (300-mm) wafer this 10nm wafer contains 10th Gen Intel® Core™ processors, code-named “Ice Lake” (Courtesy Intel). The number of dies on this 300-mm (12-inch) wafer at 100% yield is 506. According to AnandTech,¹ each Ice Lake die is 11.4 by 10.7 mm. The several dozen partially rounded chips at the boundaries of the wafer are useless; they are included because it is easier to create the masks used to pattern the silicon. This die uses a 10-nm technology, which means that the smallest features are approximately 10 nm in size, although they are typically somewhat smaller than the actual feature size, which refers to the size of the transistors as “drawn” versus the final manufactured size.