

**Table 7-4: Typical composition of bacteria cells**

<b>Constituent or element</b>	<b>Percent of dry weight</b>
<b>Major cellular material</b>	
Protein	55.0
Polysaccharide	5.0
Lipid	9.1
DNA	3.1
RNA	20.5
Other (sugars, amino acids)	6.3
Inorganic ions	1.0
Sum:	100%
<b>As cell elements</b>	
Carbon	50.0
Oxygen	22.0
Nitrogen	12.0
Hydrogen	9.0
Phosphorus	2.0
Sulfur	1.0
Potassium	1.0
Sodium	1.0
Calcium	0.5
Magnesium	0.5
Chlorine	0.5
Iron	0.2
Other trace elements	0.3
Sum:	100%
Source: Metcalf & Eddy, <u>Wastewater Engineering: Treatment and Reuse</u> , 4th ed. Boston: McGraw-Hill, 2003.	