to the glucoses see Sugar. Mucic acid *(q.υ.)* is isomeric with these acids.

SACCHARIN, the name given to several distinct chemical substances. The saccharin of commerce, so named from its exces- sively sweet taste, is a coal-tar product, being the imide of ortho- sulphobenzoic acid, C6H4<COSO2>NH. It may be prepared by the oxidation of ortho-toluenesulphonamide CH3∙C6H4∙SO2NH2, with potassium permanganate (C. Fahlberg and I. Remsen, *Ber.,* 1879, 12, p. 469); by the electrolytic oxidation of the above sulphonamide (German patent 35211); by the action of con­centrated sulphuric acid on ortho-sulphamidobenzoic acid, NH2∙SO2∙C6H4∙CO2H (German patent 113720); by warming the chloride of ortho-sulphobenzoic acid phenyl ester (SO2Cl∙C6H4∙ CO2C6H5) with excess of aqueous ammonia (R. List and M. Stein, *Ber.,* 1898,31, p. 1662); and from benzaldehyde ortho- sulphonic acid by conversion into its acid chloride, which with ammonia yields the corresponding acid-amide, which gives saccharin on oxidation with atmospheric oxygen (German patent 94948). It is a crystalline powder which melts at 220° C. with partial decomposition. It is soluble with difficulty in cold water, but is moderately soluble in hot water and readily soluble in alcohol. By the action of concentrated hydrochloric acid at 150° C. it is decomposed into ammonia and ortho-sulphobenzoic acid. With phosphorus pentachloride above 200° C. it yields ortho- chlornitrobenzene. Sodium saccharin, C6H4(CO)∙(SO2)∙N∙Na, 2H2O, is used under the name of “ soluble saccharin ” or “crystallose,” and is readily soluble in hot water. The ammonium salt is named “ sucramine.” Saccharin is largely used for sweetening purposes, pure saccharin being 500 times sweeter than sugar. Until 1891 the commercial product contained about 40 % of the tasteless para compound and was only 300 times as sweet as sugar; the mixture, however, is now separated by dissolving out the saccharin with xylene, in which solvent the para compound is insoluble. Saccharin is used as a sugar sub- stitute for diabetic patients. It is interesting to note that *o*-sulphobenzoic acid has an acid taste, and the sulphamide is tasteless; the sweetness of saccharin therefore appears to be con­nected with the formation of a cyclic anhydride. In the United Kingdom there is an import duty of is. 3d. per oz. on saccharin and similar products, and manufacturers have to take out a licence. In the United States the import duty is ·150+10% *ad valorem* per lb. Austria-Hungary, France, Belgium and Germany prohibit the importation. On the estimation of saccharin in commercial samples and for its detection in foods and beverages see J. H. Kastle, *Jour. Chem. Soc.,* 1905, 87, p. 503; E. M'K. Chace, *Jour. Amer. Chem. Soc.,* 1904, 39, p. 1627.

The lactones of the saccharic acids are also known as “ saccharins.” By boiling dextrin or laevulose with milk of lime the so-called “ sac- CH2OH·ÇH·CHOH·Ç(OH)·CH3

charin,” a lactone of the formula,

O————CO

is obtained (E. Péligot, *Ber.,* 188o, 13, p: 196; H. Kiliani, *Ber.,* 1882, 15 p. 2954). It crystallizes in large prisms, has a bitter taste, and is easily soluble in hot water. Potassium permanganate oxidizes it to carbonic and acetic acids. Heating with caustic potash to 200° C. gives formic and lactic acids, and when reduced by hydriodic acid and phosphorus it is converted into αγ-dimethylbutyrolactone. “ Iso-saccharin ” and “ meta-saccharin ” are formed by the action of lime on milk sugar (H. Kiliani, *Ber.,* 1885, 18, p. 631). The former melts at 95 C., and on reduction by hydriodic acid and

phosphorus is converted into αγ-dimethylvalerolactonc. Meta- saccharin melts at 141-142° C. and is easily soluble in water.

SACCHETTI, Franco (*c.* 1335-c. 14oo), Italian poet and novelist, was the son of Benci di Uguccione, surnamed “ Buono,” of the noble and ancient Florentine family of the Sacchetti (comp. Dante, *Par.* c. xvi.), and was born at Florence about the year 1335. While still a young man he achieved repute as a poet, and he appears to have travelled on affairs of more or less importance as far as to Genoa, Milan and “ Ischiavonia.” When a sentence of banishment was passed upon the rest of the house of Sacchetti by the Florentine authorities in 1380 it appears that Franco was expressly exempted, “ per esser tanto uomo buono,” and in 1383 he was one of the “eight,” discharging the office of “ prior ” for the months of March and April. In 1385

he was chosen ambassador to Genoa, but preferred to go as podestà to Bibbiena in Casentino. In 1392 he was podestà of San Miniato, and in 1396 he held a similar office at Faenza. In 1398 he received from his fellow-citizens the post of captain of their then province of Romagna, having his residence at Portico. The date of his death is unknown; most probably it occurred about 1400, though some writers place it as late as 1410.

Sacchetti left a considerable number of *sonnetti, canzoni, ballate, madrigali,* &c., which have never been printed, but which are still extant in at least one MS. in the Laurentian library of Florence. His *Novelle* were first printed in 1724. from the MS. in the same collection, which, however, is far from complete. They were originally 300 in number, but only 258 in whole or in part now survive. They are written in pure and elegant Tuscan, and, based as they are for the most part on real incidents in the public and domestic life of Florence, they are valuable for the light they throw on the manners of that age, and occasionally also for the biographical facts preserved in them.

SACCHI, ANDREA (*c.* 1600-1661), Italian painter of the later Roman school, was born at Nettuno near Rome in 1600, or perhaps as early as 1598. His father, Benedetto, a painter of undistinguished position, gave him his earliest instruction in the art; Andrea then passed into the studio of Albani, of whom he was the last and the most eminent pupil, and under Albani he made his reputation early. The painter of Sacchi’s predilection was Raphael; he was the jealous opponent of Pietro da Cortona, and more especially of Bernini. In process of time he became one of the most learned designers and one of the soundest colourists of the Roman school. He went to Venice and to Parma to study Venetian colour and the style of Correggio; but he found the last-named master unadaptable for his own proper methods in art, and he returned to Rome. Sacchi was strong in artistic theory, and in practice slow and fastidious; it was his axiom that the merit of a painter consists in producing, not many middling pictures, but a few and perfect ones. His works have dignity, repose, elevated yet natural forms, severe but not the less pleasing colour, a learned treatment of architec­ture and perspective; he is thus a painter of the correct and laudable academic order, admired by connoisseurs rather than by ambitious students or the large public. His principal painting, often spoken of as the fourth best] easel-picture in Rome—in the Vatican Gallery—is “ St Romuald relating his Vision to Five Monks of his Order.” The pictorial *crux* of dealing with these figures, who are all in the white garb of their order, has often been remarked upon; and as often the ingenuity and judgment of Sacchi have been praised in varying the tints of these habits according to the light and shade cast by a neighbouring tree. The Vatican Gallery contains also an early painting of the master —the “ Miracle of St Gregory,” executed in 1624; a mosaic of it was made in 1771 and placed in St Peter’s. Other leading examples are the “ Death of St Anna,” in S Carlo ai Catinari; “ St Andrew,” in the Quirinal; “ St Joseph,” at Capo alle Case; also, in fresco, a ceiling in the Palazzo Barberini—“ Divine Wisdom ”—reckoned superior in expression and selection to the rival work of Pietro da Cortona. There are likewise altar- pieces in Perugia, Foligno and Camerino. Sacchi, who worked almost always in Rome, left few pictures visible in private galleries: one, of “ St Bruno,” is in Grosvenor House. He had a flourishing school: Nicholas Poussin and Carlo Maratta were his most eminent scholars; Luigi Garzi and Francesco Lauri were others, and Sacchi’s own son Giuseppe, who died young, after giving very high hopes. This must have been an illegitimate son, for Andrea was unmarried when he died at Nettuno in 1661.

SACCHINI, ANTONIO MARIA GASPARE (1734-1786), Italian musical composer, was born at Pozzuoli, on the 23rd of July 1734. He was the son of a poor fisherman and was heard singing on the sands by Durante, who undertook his education at the Conservatorio di Sant’ Onofrio at Naples. Durante and Piccinni taught him composition, and Nicola Fiorenza the violin. The intermezzo *Fra Donato* was written for the theatre of the Conservatorio in 1756, but his first serious opera was produced at Rome in 1762, and was followed by many others, nearly all of which were successful. In 1769 he went to Venice, and in consequence of the great success achieved there by the