Preface

Anthocyanins (from Ancient Greek ἄνθος (ánthos) 'flower' and κυάνεος/κυανοῦς (kuáneos/kuanoûs) 'dark blue'), also called anthocyans, are water-soluble vacuolar pigments that, depending on their pH, may appear red, purple, blue, or black. In 1835, the German pharmacist Ludwig Clamor Marquart named a chemical compound that gives flowers a blue color, Anthokyan, in his treatise "Die Farben der Blüthen" (English: The Colors of Flowers). Food plants rich in anthocyanins include the blueberry, raspberry, black rice, and black soybean, among many others that are red, blue, purple, or black. Some of the colors of autumn leaves are derived from anthocyanins.

Anthocyanins belong to a parent class of molecules called flavonoids synthesized via the phenylpropanoid pathway. They can occur in all tissues of higher plants, including leaves, stems, roots, flowers, and fruits. Anthocyanins are derived from anthocyanidins by adding sugars. They are odorless and moderately astringent.

Although approved as food and beverage colorant in the European Union, anthocyanins are not approved for use as a food additive because they have not been verified as safe when used as food or supplement ingredients. There is no conclusive evidence that anthocyanins have any effect on human biology or diseases.[i]

In the present book, eleven typical literatures about Anthocyanins published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on Anthocyanins. We hope this book can demonstrate advances in Anthocyanins as well as give references to the researchers, students and other related people.

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[i] https://en.wikipedia.org/wiki/Anthocyanin