most appropriate excipients in dosage form design. The present review focuses on the techniques for compatibility screening of active pharmaceutical ingredient with their potential merits and demerits. Further, the review highlights the applicability of these techniques using specific drug-excipient compatibility case studies.

Darji, M. A. et al. (2018). "Excipient stability in oral solid dosage forms: A review." *AAPS Pharm Sci Tech* 19(1):12–26.

The choice of excipients constitutes a major part of preformulation and formulation studies during the preparation of pharmaceutical dosage forms. The physical, mechanical, and chemical properties of excipients affect various formulation parameters, such as disintegration, dissolution, and shelf life, and significantly influence the final product. Therefore, several studies have been performed to evaluate the effect of drug-excipient interactions on the overall formulation. This article reviews the information available on the physical and chemical instabilities of excipients and their incompatibilities with the active pharmaceutical ingredient in solid oral dosage forms, during various drug-manufacturing processes. The impact of these interactions on the drug formulation process has been discussed in detail. Examples of various excipients used in solid oral dosage forms have been included to elaborate on different drug-excipient interactions.

Gajdziok, J. and B. Vranikova (2015). "Enhancing of drug bioavailability using liquisolid system formulation." *Ceska Slov Farm* 64(3):55–66.

One of the modern technologies of how to ensure sufficient bioavailability of drugs with limited water solubility is represented by the preparation of liquisolid systems. The functional principle of these formulations is the sorption of a drug in a liquid phase to a porous carrier (aluminometasilicates, microcrystalline cellulose, etc.). After addition of further excipients, in particular a coating material (colloidal silica), a powder is formed with the properties suitable for conversion to conventional solid unit dosage forms for oral administration (tablets, capsules). The drug is subsequently administered to the GIT already in a dissolved state, and moreover, the high surface area of the excipients and their surface hydrophilization by the solvent used, facilitates its contact with and release to the dissolution medium and GI fluids. This technology, due to its ease of preparation, represents an interesting alternative to the currently used methods of bioavailability improvement. The article follows up, by describing the specific aspects influencing the preparation of liquid systems, on the already published papers about the bioavailability of drugs and the possibilities of its technological improvement. Key words: liquisolid systems bioavailability porous carrier coating material preformulation studies.

Kawakami, K. (2012). "Modification of physicochemical characteristics of active pharmaceutical ingredients and application of supersaturatable dosage forms for improving bioavailability of poorly absorbed drugs." *Adv Drug Deliv Rev* 64(6):480–495.

New chemical entities are required to possess physicochemical characteristics that result in acceptable oral absorption. However, many promising candidates need physicochemical modification or application of special formulation technology. This review discusses strategies for overcoming physicochemical problems during the development at the preformulation and formulation stages with emphasis on