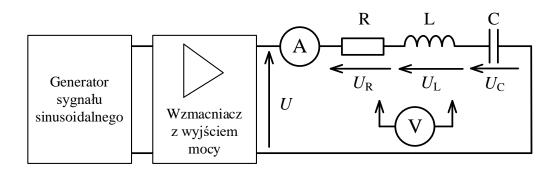
| Wydział Elektrotechniki i Informatyki Politechniki Lubelskiej | Laboratorium Podstaw Elektrotechniki i Elektroniki | | | | |
|--|--|-------------------|----------------|--|--|
| Skład osobowy grupy laboratoryjnej: | Rok akademicki: | Kierunek studiów: | Stanowisko nr: | | |
| | 20 /20 | I1S / I1N | | | |
| | Semestr: | Grupa: | | | |
| | zimowy | | | | |
| Temat ćwiczenia: Obwody rezonansowe | | Data wykonania: | Podpis: | | |
| | | | | | |

Zadanie 5.1. Wyznaczenie charakterystyk częstotliwościowych w szeregowym układzie połączeń elementów RLC



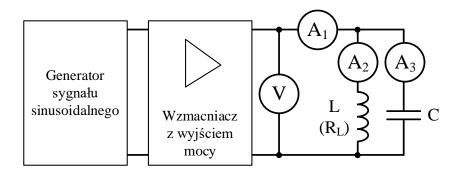
Rys. 1. Schemat układu pomiarowego do badania charakterystyk częstotliwościowych szeregowego obwodu RLC

Tabela 1. Tabele pomiarowe do badania rezonansu w obwodzie szeregowym RLC

| $R = R_1 =$ | Ω | $R_{\rm L}$ = | Ω L | = H | <i>C</i> = | μF | |
|-------------|----------------|---------------|------------|------------|------------|------------|--------------------|
| In | $oldsymbol{U}$ | f | I | $U_{ m R}$ | $U_{ m L}$ | $U_{ m C}$ | Z_{OBL} |
| lp. | V | Hz | mA | V | V | V | Ω |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |

| $R = R_2 =$ | Ω | $R_{\rm L} =$ | Ω L | = H | <i>C</i> = | μF | |
|-------------|----------------|---------------|------------|------------|------------|------------------|--------------|
| 1 | $oldsymbol{U}$ | f | I | $U_{ m R}$ | $U_{ m L}$ | U_{C} | $Z_{ m OBL}$ |
| lp. | V | Hz | mA | V | V | V | Ω |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | _ | |

Zadanie 5.2. Wyznaczenie charakterystyk częstotliwościowych w równoległym obwodzie LC



Rys. 2. Schemat układu pomiarowego do badania charakterystyk częstotliwościowych równoległego obwodu LC

 $Tabela\ 2.\ Tabele\ pomiarowe\ do\ badania\ rezonansu\ w\ obwodzie\ r\'ownoległym\ LC$

| C | = C ₁ = | $\mu F R_L =$ | Ω | L = | Н | |
|-----|--------------------|---------------|-------|-------|-------|--------------------|
| In | $oldsymbol{U}$ | f | I_1 | I_2 | I_3 | Y_{OBL} |
| lp. | V | Hz | mA | mA | mA | S |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |

| C | $= C_2 =$ | $\mu F R_L =$ | Ω | L = | Н | |
|-----|-----------|---------------|-------|-------|-----------------------|--------------------|
| ln. | U | f | I_1 | I_2 | <i>I</i> ₃ | Y_{OBL} |
| lp. | V | Hz | mA | mA | mA | S |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |